SEVENTY-SECOND PLENARY ECFA MEETING

Geneva – 29 November 2002

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LIST OF PARTICIPANTS

Chairman: B. Foster University of Bristol/DESY, United Kingdom

Secretary: J. Tuominiemi HIP, Finland

Members: T. Akesson Lund University, Sweden
J. Alcaraz Ciemat, Spain
R. Aleksan CEA/Saclay, France
E. Aslanides CPP Marseille, France
B. Asman University of Stockholm, Sweden
J.E. Augustin LPNHE/IN2P3/CNRS/Uni. de Paris 6, France
G. Barreira LIP, Portugal
L. Camilleri CERN
F. Ceradini Roma III, Italy
J. Chauveau LPNHE, Paris - France
J. Chauvin IN2P3, Grenoble, France
P. Colas CEA/DAPNIA Saclay, France
G. Cowan RHUL, U.K.
A. De Roeck CERN
J.P. Delahaye CERN
P. Dornan Imperial College, U.K.
J. Engelen NIKHEF, The Netherlands
D. Espriu University of Barcelona, Spain
G.F. Giudice CERN
J.D. Hansen NBI, Denmark
R.D. Heuer University of Hamburg, Germany
E. Hilger University of Bonn, Germany
H. Hogaasen University of Oslo, Norway
W. Hollik MPI, Munich, Germany
G. Ingelman Uppsala University, Finland
Q. Ingram PSI, Switzerland
K. Jakobs University of Mainz, Germany
V. Kftanov ITEP, Russian Federation
C. Kourkoumelis University of Athens, Greece
M. Krammer HEPHY, Vienna, Austria
D. Kuhn University of Innsbruck, Austria
A.I. Lebedev LPI, Russian Federation
C.A. Lutken University of Oslo, Norway
L. Mandelli INFN, Milan, Italy
J.P. Martin IPNL, France
K. Meier University of Heidelberg, Germany
A. Olchewski JINR, Dubna, Russian Federation
F. Ruggiero CERN
S. Rusanov LPI, Russian Federation
D. Schaile LMU, Munich, Germany
J. Schukraft CERN
L. Serin LAL/Orsay, France
R. Settles MPI, Munich
M. Seymour University of Manchester, U.K.
T. Speer  Switzerland
S. Stapnes  Institute of Physics, Oslo, Norway
Z. Trocsanyi  Debrecen University, Hungary
W. Van Doninck  ULB/VUB, Belgium
G. Van Middelkoop  NIKHEF, The Netherlands
A. Wagner  DESY
Th. Walcher  University of Mainz, Germany
C. Wyss  CERN
P. Zerwas  DESY
F. Zwirner  University of Rome, Italy

Minute-Writer: J. Pym

Apologies: A. Sissakian
C. Bemporad
A. Buras
P. Malecki
A.N. Skrinsky
L. Rolandi
The meeting was called to order at 9.35 a.m.

The CHAIRMAN welcomed the new members of ECFA Professors S. Stapnes (Norway) and C.A. Lutken (Norway) and Drs L. Serin (France), G. Giudice (CERN) and A. De Roeck (CERN). He also wished to welcome Professor A. Olchevski (JINR), replacing Professor A. N. Sissakian, who had sent his apologies. Apologies had also been received from Professors C. Bemporad, A. Buras, P. Malecki, A.N. Skrinsky and Dr L. Rolandi.

1. **APPROVAL OF THE DRAFT AGENDA**
   (Item 1 of the Agenda) (ECFA/02/219)

   On the proposal of the CHAIRMAN, it was agreed to amend the title of Item 6 to read "New Studies on Physics and Detectors for a linear electron-positron collider and on Neutrino Factories".

   The Agenda (ECFA/02/219), as amended, was adopted.

2. **APPROVAL OF THE DRAFT MINUTES OF THE SEVENTY-FIRST PLENARY ECFA MEETING**
   (Item 2 of the Agenda) (ECFA/02/218/Draft)

   The Minutes of the seventy-first meeting (ECFA/02/218) were approved.

3. **CHAIRMAN’S REPORT**
   (Item 3 of the Agenda) (Chairman – Oral)

   The CHAIRMAN presented his report\(^1\), covering the meetings of the CERN Council and its committees in June, September and November, the RECFA visit to Bulgaria, the ICFA meetings in Amsterdam and CERN, together with the highlights from the recent ICFA seminar, and finally the latest developments concerning linear colliders, including the setting up of an international linear collider steering group, the first meetings of the European linear collider steering group sub-committees and the formation of an OECD Consultative Group Mark II.

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\(^1\) See Annex 1.
In reply to VAN MIDDELKOOP, who wished to know whether the unanimous approval for a continuation of the OECD Consultative Group signified a shift in the Japanese view. The CHAIRMAN said that the Japanese delegation had seemed very impressed by the initiatives undertaken within the Global Science Forum and the OECD as a whole to improve connections with China and Russia, and that, in his opinion, was likely to have been a major factor in defining the positive Japanese attitude towards a continuation of the study.

The Committee took note of the Chairman’s report.

The meeting was adjourned at 10.40 a.m. and resumed at 11.00 a.m.

4. **CERN MATTERS**

   (Item 4 of the Agenda) (L. Maiani)

   MAIANI presented his report\(^2\), explaining that the whole Laboratory was now committed to the LHC, with a limited number of ring-fenced parallel activities aimed at maintaining a minimum scientific diversity and preserving vital options for the future. The long-term plan for the construction and financing of the LHC for the years 2003 to 2010 had now been finalised and would be submitted to the Council at its December session. It was the culmination of the complex processes set in motion by the 2001 LHC cost-to-completion review, and built on the considerable work done by the internal Task Forces, the External Review Committee and the Management in its medium-term plan of June 2002 and "Action Plan" of September. The long-term plan also included a CERN-wide manpower plan, drawn up on the basis of the manpower review undertaken since summer 2002.

   Council’s approval of the long-term plan in December was absolutely vital to the success of the LHC. It was important to emphasise, however, that the plan provided a baseline only and certainly not an optimal picture of the long-term role CERN could play in European particle physics, as the Laboratory’s know-how and infrastructure were significantly under-used. In other words, he hoped that in the coming years the Council might reconsider the level of scientific activity at the Laboratory and make some additional resources available for programmes such as LHC computing and R&D.

   The Committee took note of Maiani's report.

\(^2\) See Annex 2.
5. **DESY MATTERS**
   (Item 5 of the Agenda) (A. Wagner)

WAGNER presented his report\(^3\), covering news from the HERA machine and the associated experimental programme, the proposal to use the PETRA tunnel as a synchrotron light source at the end of HERA running in 2006 as well as the latest developments on the TESLA project, including an agreement with SLAC to collaborate in the exploitation and expansion of the scientific capabilities of X-ray Free Electron Lasers.

In reply to a remark from VAN MIDDELKOOP, who observed that the idea of involving a wide spectrum of laboratories in the overall design and development of the TESLA machine appeared to be more complicated than the traditional approach where individual laboratories took responsibility for specific items, WAGNER said that it was important to distinguish between the design phase, on the one hand, and the construction and financing on the other. In his own view, and in that taken by the proponents of the ALMA project, it was necessary and desirable to involve as many experts as possible in the design of the machine so as to achieve the highest possible efficiency and success rate and thus develop what had come to be known as an "integrated product". As far as the construction and financing were concerned, he could see no alternative to the traditional scheme of entrusting individual components to individual laboratories. All such issues were currently being debated in the Organisation Sub-Committee of the European Linear Collider Steering Group, chaired by Professor G. Kalmus.

The Committee took note of Wagner's report.

The meeting was adjourned at 12.25 p.m. and resumed at 1.35 p.m.

On the CHAIRMAN's proposal, it was agreed to reverse the order of Agenda Items 6 and 7.

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\(^3\) See Annex 3.
6. **ACCELERATOR R&D IN EUROPE AND AN INITIATIVE FOR EUROPEAN UNION FUNDING**

(Item 7 of the Agenda) (R. Aleksan)

ALEKSAN presented his report, notably informing the Committee of the formation by the Directors of CCLRC, CERN, DAPNIA/CEA, DESY, LNF, Orsay/IN2P3 and PSI of the European Steering Group on Accelerator R&D (ESGARD), of which he had been appointed coordinator. The Steering Group had been entrusted with the task of developing a proposal to optimise and enhance the outcome of research and technical development (RTD) in the field of accelerator physics in Europe by promoting mutual coordination and facilitating the pooling of European resources, promoting a coherent and coordinated utilisation and development of infrastructures, and promoting interdisciplinary collaboration, including industry. That proposal was aimed at preparing and conducting a coherent set of bids to apply for EU funding within the Sixth Framework Programme (FP6).

Although the time schedule was extremely tight, FP6 offered a unique opportunity to coordinate and integrate European activities on accelerator RTD and apply for EU funding. ESGARD had started working towards that goal, but the support and help of the HEP community in general and of ECFA in particular would be essential to the success of that endeavour.

In reply to WALCHER, who wished to know whether the funds granted for accelerator R&D within FP6 could be used to complement existing programmes already supported by other national or transnational organisations, or whether it was necessary to avoid an overlap, ALEKSAN explained that there was indeed a risk of some overlap between the request for accelerator R&D funding submitted under the auspices of ECFA and the funding requests submitted by other communities. Discussions were under way to keep duplication to a minimum. For the time being, he had no clear idea whether the European Commission was going to be willing to provide complementary funding for existing programmes, but once the ECFA proposal had been finalised he would arrange to meet the relevant EU officers in Brussels and present the community's case in the strongest possible terms.

The Committee, expressing its gratitude and full support for the initiatives taken by the ESGARD group, took note of Aleksan's report.

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4 See Annex 4.
7. **NEW STUDIES ON PHYSICS AND DETECTORS FOR A LINEAR ELECTRON POSITRON COLLIDER AND ON NEUTRINO FACTORIES**

(Item 6 of the Agenda) (D. Miller)

- New ECFA study on physics and detectors for a linear electron-positron collider

MILLER presented a proposal from the Organising Committee and Conveners of the ECFA-DESY Linear Collider Workshop for a new study from Spring 2003 to Spring 2005 to be entitled "The ECFA Study of Physics and Detectors for a Future Linear Collider".\(^5\)

ZERWAS stated that the ECFA-DESY Linear Collider Workshop had been the driving force behind the worldwide development of experimental and theoretical physics for the linear collider and it was therefore quite natural and highly desirable to maintain that group’s momentum by approving a continuation of its work for at least another two years.

In reply to DE ROECK, who wished to know whether the new study would be limited to a linear collider in the 500-1000 GeV range or extended to include CLIC, MILLER said that the organising committee was essentially requesting ECFA’s approval to pursue the practical and essential short-term goal of setting up a 500-1000 GeV linear collider programme. Whether or not it should spend time and energy looking at the distant possibility of a 3 TeV programme was a matter for ECFA to decide.

HEUER pointed out that the terms of reference of the study had never been formally limited to an energy of 1 TeV and indeed the study group had always looked beyond that threshold. However, over the next two to three years it was vital to focus on what was viable in the short term and not to become distracted by more long-term ambitions.

The CHAIRMAN, agreeing with that point, said that Restricted ECFA had heard Miller’s detailed presentation at its meeting the previous day and decided to recommend Plenary ECFA to approve a two-year extension of the study.

On the CHAIRMAN’s proposal and on the recommendation of Restricted ECFA, **Plenary ECFA decided** to approve the extension of the study on linear

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\(^5\) See Annex 5.
colliders under the proposed new name "The ECFA study on linear colliders" for a period of two years, with effect from 1 April 2003.

Following remarks by HEUER on the need for rapid approval of the Chair, organising committee and convenors once they had been proposed by the present steering committee, so as to avoid losing the momentum built up by the present study, Plenary ECFA further agreed to delegate that decision to Restricted ECFA, whose members could, in the interests of expediency, conduct their deliberations by e-mail or, if necessary, by telephone conference.

- New ECFA study on neutrino factories

The CHAIRMAN said that at its meeting the previous day Restricted ECFA had also received a paper on the ECFA-sponsored neutrino factory study, similar to the one presented by A. Blondel to Plenary ECFA in June, and had similarly decided to recommend Plenary ECFA to approve a two-year extension of that study.

On the CHAIRMAN’s proposal and on the recommendation of Restricted ECFA, Plenary ECFA decided to approve the extension of the ECFA-sponsored study on neutrino factories for a period of two years, with effect from 1 January 2003.

On the CHAIRMAN’s proposal, Plenary ECFA further agreed to delegate the decision on the Chair, organising committee and convenors of the extended study to Restricted ECFA, whose members could, in the interests of expediency, conduct their deliberations by e-mail or, if necessary, by telephone conference.

8. OTHER BUSINESS
   (Item 8 of the Agenda)

- Death of René Turlay

MAIANI announced, with regret, that former ECFA member Professor René Turlay had died the previous evening at the age of seventy. Member of the CERN Scientific Policy Committee from 1981 to 1987 and a former Director of the Saclay Laboratory, Professor Turlay had been one of the four authors of the landmark 1964 paper on the decay of K long, which had announced the discovery of CP violation.

- Timetable of meetings of Plenary and Restricted ECFA in 2003
The CHAIRMAN presented the timetable of meetings of Plenary and Restricted ECFA in 2003⁶.

On the CHAIRMAN's proposal and on the recommendation of Restricted ECFA, Plenary ECFA decided no longer to hold its summer meeting once every two years in conjunction with the European Physical Society's Summer Conference, and to revert to the previous arrangement, which involved alternating the venue for the summer meetings of Plenary and Restricted ECFA between CERN and DESY, and holding the winter meetings at CERN.

The Committee took note of the timetable of ECFA meetings in 2003.

The meeting rose at 2.25 p.m.

⁶ See Annex 6.