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**ORGANISATION EUROPÉENNE POUR LA RECHERCHE NUCLÉAIRE**
**CERN EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH**

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# EIGHTY-SEVENTH PLENARY ECFA MEETING

LNF – Frascati – 1 and 2 July 2010

## MINUTES

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LIST OF PARTICIPANTS

| | | |
|---|---|---|
| **Chairman:** | T. Nakada | Switzerland |
| **Secretary:** | K. Long | U.K. |
| **Members:** | H. Aikara | Japan |
| | B. Åsman | Sweden |
| | S. Bertolucci | CERN |
| | C. Bloise | Italy |
| | J.C. Brient | France |
| | M. Calvetti | Italy |
| | J. Chyla | Czech Republic |
| | S. de Jong | Netherlands |
| | J.P. Delahaye | CERN |
| | V. Del Duce | Italy |
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| | K. Desch | Gemany |
| | M. Diemoz | Italy |
| | Z. Dolezal | Czech Republic |
| | U. Dosselli | Italy |
| | E. Elsen | DESY |
| | D. Favart | Belgium |
| | B. Foster | U.K. |
| | T. Gehrmann | Switzerland |
| | M.J. Herrero | Spain |
| | R. Heuer | CERN |
| | K. Huitu | Finland |
| | J. Kalinowski | Poland |
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| | K. Milardi | Italy |
| | E. Nappi | Italy |
| | E. Merola | Italy |
| | F. Richard | France |
| | E. Rondio | Poland |
| | D. Son | Korea |
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| | P. Buchholz | Germany |
| | M. Cavalli-Sforza | Spain |
| | C. De Clercq | Belgium |
| | C. de los Heros | Sweden |
| | T. Garvey | Switzerland |
| | S. Gascon-Shotkin | France |
| | P. Hansen | Denmark |
| | M. Merk | Netherlands |
| | K. Moenig | DESY |
| | Z. Trocsanyi | Hungary |
| | P. Watkins | U.K. |
| | D. Zeppenfeld | Germany |

The meeting was called to order by the Chairman at 2.00 p.m.

PETRONZIO, in his capacity as President of INFN, welcomed the members of Plenary ECFA to the Frascati Laboratory and underlined the present difficult economic and financial context, where governments throughout Europe were having to implement radical austerity measures in order to safeguard their economies. In Italy, the scientific community was lobbying hard to ensure that the research sector was as far as possible spared from the linear cuts that were expected in the forthcoming financial law, which would be extremely damaging for all science, and in particular for particle physics. The initial signs in that regard were relatively encouraging and he would keep the ECFA community apprised of the situation as it developed over the coming weeks and months. Vigorous R&D programmes were needed at Frascati, CERN and other leading European laboratories and institutes, notably through pan-European initiatives such as TIARA, to ensure a bright future for accelerator-based particle physics, building on the anticipated great successes of the LHC.

Applause.

1. APPROVAL OF THE DRAFT AGENDA
(Item 1 of the Agenda) (ECFA/10/264)

The Draft Agenda (ECFA/10/264) was adopted.

2. APPROVAL OF THE DRAFT MINUTES OF THE EIGHTY-SIXTH PLENARY ECFA MEETING HELD AT CERN FROM 26-27 NOVEMBER 2009
(Item 2 of the Agenda) (ECFA/09/262/Draft)

The Draft Minutes of the eighty-sixth meeting (ECFA/09/262/Draft) were approved.

3. ELECTION OF SECRETARY
(Item 3 of the Agenda)

The CHAIRMAN explained that the term of office of the current ECFA secretary, Professor P. Hansen from Denmark, was coming to an end and that, at its meeting on 8 May, Restricted ECFA had unanimously decided to recommend Plenary ECFA to appoint Professor K. Long (United Kingdom) Secretary of ECFA for a period of three years as of 1 July 2010.

The Committee unanimously decided to endorse the recommendation of Restricted ECFA to appoint Professor K. Long Secretary of ECFA for a period of three years with effect from 1 July 2010.

## 4. WELCOME AND INTRODUCTION TO LNF

(Item 4 of the Agenda) (Oral)

CALVETTI, in his capacity as Director of the *Laboratorio Nazionale di Frascati* (LNF), gave a general presentation[1] of the facilities and experiments hosted by LNF, underlining that, for the time being, it was a multidisciplinary laboratory dedicated to accelerator-based particle physics in close collaboration with similar, like-minded laboratories and institutions across Europe.

In reply to ELSEN (DESY, Germany), who wished to know the extent to which bunch-to-bunch distance could be varied in the plasma wakefield multibunch excitation, CALVETTI explained that distances could be varied by splitting the ultraviolet laser illuminating the cathode and then sending the light onto the cathode.

The Committee took note of Calvetti's report.

## 5. KLOE-2 STATUS

(Item 5 of the Agenda) (Oral)

BOSSI (LNF, Italy) presented the status of the KLOE-2 experiment at Frascati's DAΦNE $e^+e^-$ accelerator, for which the preliminary data-taking run (step-0) was due to commence in the coming days. The KLOE collaboration numbered some 80 researchers from 12 institutions in five different countries and was always open to new members and ideas.

In reply to a question from ELSEN about the comparative potential of DAΦNE and BaBar to resolve the uncertainty on the g-2, BOSSI underlined that it was the least-known part of the hadronic contribution to the Standard Model due to the experimental errors, which ranged from 3% to 10% accuracy. It was a field where a considerable scope for improvement remained, since even BaBar was unable to do significantly better than those errors on certain specific channels.

The Committee took note of Bossi's report.

## 6. CHAIRMAN'S REPORT

(Item 6 of the Agenda) (Oral)

The CHAIRMAN presented his report, covering the ICFA/ILCSC meeting in February 2010, news from the CERN Council and the DESY Scientific Council, ApPEC meetings, the

[1] The hyperlinks point to the presentations, which are stored on the meeting's Indico page: http://indico.cern.ch/conferenceDisplay.py?confId=96862

EPS HEP Board meeting in April 2010, the ASEPS meeting in Japan in March, the detector R&D and neutrino review panels and the Restricted ECFA visits to Belgium and Bulgaria.

The Committee took note of the Chairman's report.

7. CERN REPORT
(Item 7 of the Agenda) (Oral)

BERTOLUCCI (Director of Research, CERN) presented the latest preliminary results from the LHC experiments and on the performance of the LHC Worldwide Computing Grid.

HEUER (Director-General, CERN) presented his report, focussing on the scientific strategy set out in the Medium-Term Plan submitted to the Council in June, the long-term strategy for the operation of the LHC over the coming twenty years, outreach and technology transfer, including the launch of the CERN Global Network, and last but not least the decision by the CERN Council to open eligibility for CERN Membership to all States, irrespective of their geographical location, and to create a new Associate Member status to enable non-Member States to establish or intensify their institutional links with CERN and to serve as the obligatory pre-stage to Membership.

In reply to RICHARD (Orsay, France), who wished to know how the initial LHC results would be factored into the update of the European Strategy for Particle Physics, scheduled for 2012, HEUER said that he had asked the Leader of the LHC Physics Centre at CERN, M. Mangano, to coordinate with linear collider groups in order to make a first interpretation of the LHC results by around spring 2012, as that would naturally be crucial input for the overall update. It was presently planned to initiate discussions of the update in July 2011 at the EPS Conference in Grenoble and then to have a symposium in early 2012, like the one organised at Orsay in 2006, where the whole community would have the opportunity to provide input into the process. The Council's Strategy Group would then meet, probably in July 2012, with a view to delivering the draft updated Strategy for approval at a European Strategy Session of the Council to be held in Brussels in September 2012.

STAPNES (Scientific Secretary of the Council's European Strategy Sessions, CERN) added that he anticipated submitting a document to the Council in March 2011 setting out the overall timetable and procedure for the Strategy Update. He would give further details in his presentation under Item 16 of the present agenda.

Responding to a question from DESCH (University of Bonn, Germany) about the possible need to re-evaluate the physics case for the HL-LHC luminosity target of 3 $ab^{-1}$ by 2030, HEUER said that 3 $ab^{-1}$ was a difficult but attainable goal, agreed in consultation with

the LHC experiments. It would indeed be appropriate to re-evaluate the physics case around 2012-2013. He further emphasised that the whole strategy for reaching high luminosity at the LHC had been revised with a resulting dramatic decrease in the project's price tag and thus an increase in the likelihood that the project would receive the necessary political support.

In reply to questions from WULZ (Vienna Institute for High-Energy Physics, Austria) about the conditions attached to the new status of Associate Membership, HEUER explained that the fee for Associate Members would be 10% of the nominal contribution payable as a Member State, with a minimum of 1 MCHF per annum. The rationale behind the setting of a relatively low entrance fee for Associate Members stemmed not from financial considerations but from the political desire to give States already collaborating with CERN the incentive to strengthen their formal ties at a non-prohibitive cost. Existing Member States would not have the entitlement to take up Associate Membership.

In reply to the CHAIRMAN, who wished to know whether, given the financial climate, the CERN Management was envisaging cuts in the scientific programme and, if so, according to which criteria, HEUER underlined that the Council had been unable to approve the Medium-Term Plan and the 2011 Budget at its June Session and had called additional meetings of the Scientific Policy Committee and Finance Committee for the end of August to discuss a revised MTP and 2011 Budget developed over the summer in bilateral talks with the Member States. Reaching agreement on the MTP would be a tall order, given the conflicting requirements of reducing Member State contributions with respect to previous MTPs and paying off the LHC debt within the period of the Plan, while at the same time pursuing the essential consolidation of basic infrastructure, setting aside much-needed resources for the Pension Fund, the Health Insurance Scheme and the five-yearly review and last but certainly not least conducting a world-class scientific programme and R&D aimed at ensuring a bright future for European particle physics. The Management would be considering all possible options in its search for solutions, including postponements, efficiency savings, reductions and cuts, and any input from ECFA members would be very welcome.

The Committee took note of the reports by Bertolucci and Heuer.

The meeting was adjourned at 4.20 p.m. and resumed at 4.45 p.m.

## 8. DESY REPORT

(Item 8 of the Agenda) (Oral)

ELSEN, conveying the apologies of J. Mnich, presented the report on DESY matters, covering the status of XFEL construction, the FLASH, ALPS and Olympus experiments, ongoing HERA analyses, the Physics at LHC 2010 conference in June, the Helmholtz

Alliance *Physics at the Terascale* and ILC developments. He was pleased to announce that the prestigious Alexander von Humboldt (AvH) Professorship had been awarded to former ECFA Chairman B. Foster for five years of research at DESY.

In reply to questions from STAPNES on the yield goal for the ILC cavities at 35 MV/m and on the scheduled arrival of the new batches of RF cavities, ELSEN said that the goal was an 80% yield in the first pass for 35 MV/m in the vertical test. The tendering procedure had been finalised with a view to delivery of the 600 cavities starting in autumn 2011.

The Committee took note of Elsen's report.

## 9. MID-TERM REPORT FROM THE NETHERLANDS
(Item 9 of the Agenda) (Oral)

DE JONG (NIKHEF, Netherlands) presented his mid-term report on the status of high-energy physics in the Netherlands since the last visit by Restricted ECFA in 2005.

Responding to questions from STAPNES, DE JONG said that the funding difficulties faced by the Netherlands research sector were across the board. Several recent reports concurred that the shortfall was of the order of 1 to 1.5 billion euros per year. There were no concrete plans to increase the Netherlands' efforts in the field of accelerator physics.

In reply to ÅSMAN (University of Stockholm, Sweden), DE JONG clarified slide 9 of his presentation entitled "Gender inequality", explaining that funds were being invested to boost the percentage of full professorships occupied by women in science. In that regard, the trend for particle physics was slightly worse than the average trend across all scientific disciplines.

The Committee took note of de Jong's report.

## 10. MID-TERM REPORT FROM DENMARK
(Item 10 of the Agenda) (Oral)

UGGERHØJ (University of Arhus, Denmark) presented his mid-term report on the status of high-energy physics in Denmark since the last visit by Restricted ECFA in 2006.

The Committee took note of Uggerhøj's report.

11. HEP COMMUNITY IN ASIA
(Item 11 of the Agenda) (Oral)

- Japan

AIHARA presented his report on the manner in which the HEP community in Japan is organised, how the decision-making for the HEP programme is performed and how the field as a whole is funded.

In reply to a question from RICHARD about the direct lobbying of the Japanese Parliament by members of the HEP community, AIHARA said that a bipartisan group had indeed been lobbying members of the Japanese Parliament to promote funding for future accelerators. However, such tactics which effectively circumvented the normal communication channels had not been greatly appreciated by scientists in other disciplines, and it had therefore been necessary to exercise caution and limit such activities to outreach and general communication on particle physics aims.

- Korea

SON presented his report, providing a general overview of high-energy physics in Korea.

In reply to a question from the CHAIRMAN about the status of the National High Energy Physics "Benjamin W. Lee" Laboratory, SON said that a good consensus in favour of its construction was being built up within the community and that preliminary indications from government sources also looked favourable.

The Committee took note of the reports by Aihara and Son.

The meeting was adjourned at 7.05 p.m. on Thursday 1 July and resumed at 9.00 a.m. on Friday 2 July.

12. ILC GOVERNANCE MODEL
(Item 12 of the Agenda) (Oral)

FOSTER (University of Oxford, United Kingdom) presented a global overview of the ILC project, focussing first on the latest hardware and R&D results and then on the conclusions of an interim report on how an ILC Laboratory could be set up, operated and governed. In conclusion, he stated that construction of the ILC could in principle commence forthwith, but with a relatively high price-tag. Significant R&D efforts were under way to produce savings and thus contain costs while maintaining the physics specifications. Collaboration with CLIC was intensifying and a consensus existed that the best machine

should be built whenever and wherever the political will and funding became available. Nonetheless, for that to be possible it was essential for a credible project to be ready for implementation as soon as exciting results arrived from the LHC and to that end further discussion was required on the political framework. First reactions in that respect from FALC (Funding Agencies for Large Colliders) had been quite encouraging and input would also be very welcome from the members of ECFA.

In reply to GEHRMANN (University of Zürich, Switzerland), who requested more details on the collaboration with CLIC, FOSTER observed that beyond the obvious similarities between the two projects – civil engineering, damping rings etc. – it was possible to match approximately two-thirds of the ILC working groups to similar working groups within CLIC. They had now been working together for over a year and the cooperation seemed to be running very smoothly. Another joint working group was examining the delicate question of costing with a view to agreeing on a common costing basis in order to make a fair comparison between the two machines. The most important point of all was for the two projects to agree that the linear collider community must be united and advance along the same lines. Over the past two years, encouraging signs had emerged that that was indeed happening.

The Committee took note of Foster's report.

## 13. CLIC STATUS

(Item 13 of the Agenda) (Oral)

DELAHAYE presented an update on the CLIC status with respect to his comprehensive presentation to Plenary ECFA in November 2009, covering R&D progress on CLIC feasibility issues and preparation of the Conceptual Design Report. In conclusion, he said that the novel CLIC technology was being developed with a view to extending linear colliders into the multi-TeV range. To that end, R&D was being conducted on feasibility issues and the 3 TeV linear collider concept in order to inform the community of the possibilities and capabilities but also the limitations of a linear collider in the multi-TeV range. That work would need to be complemented by a technical design phase of five to six years aimed at optimising the engineering design and mitigating the costs and technological risks, preferably at the linear collider energy and luminosity. The appropriate technology would be defined as the best trade-off between physics requirements once more was known from the LHC and Tevatron, but also based on the studies of design performances, technology risk, power consumption and cost from CLIC and the ILC.

In reply to the CHAIRMAN, who asked whether X-band technology had reached a sufficient level of maturity to be used in collider construction today, DELAHAYE said that

while it could today be used for prototypes or for systems with a limited number of components as envisaged for medical applications, it was not yet ready for series production on a large scale. Developing its industrialisation, including fabrication on a large scale with high reproducibility and minimum cost, was one of the aims of the technical design phase over the coming five to six years.

Responding to a question from ELSEN on the power production structure (PETS), DELAHAYE explained that the original intention was to be able to switch off the power delivered to the accelerating structure from one pulse to the next in the event of breakdowns. The switching time is therefore 20 ms, corresponding to the interval between beam pulses. Current tests were now also aiming to tune the power in order to re-condition the structure when necessary during operation or with a pulse off-cycle.

The Committee took note of Delahaye's report.

## 14. LC PHYSICS AND DETECTOR FOR FUTURE WORKSHOP
(Item 14 of the Agenda) (Oral)

RICHARD presented his report, covering the International Linear Collider Workshop in Beijing in March and the forthcoming ECFA-sponsored joint machine-detector workshop at CERN in October and briefly outlining some of the key developments since his last presentation to Plenary ECFA in November 2009. In conclusion, he said that preparation for physics and detectors at the next linear collider was advancing well in spite of the acute shortage of resources, in both financial and human terms. R&D collaborations and detector concepts were steadily converging on a realistic set-up, which was an essential complement to the proposal for a machine. The CLIC and ILC teams were multiplying contacts to improve fruitful collaboration on detectors, and both the CLIC CDR and the ILC TDR+DBD would provide major inputs into the 2012 update of the European Strategy for Particle Physics. Naturally, both sides of the linear collider community were eagerly awaiting results from the LHC to orient their final choices, and the ECFA workshop at CERN would be an important step in preparing that strategy. However, in order to maintain momentum in the present international collaborative effort, it was vital to set a clear goal and timetable.

Responding to comments from KARYOTAKIS (LAPP, France), who underlined the risks associated with basing the whole physics case for the linear collider on the – possibly inconclusive – results available from the LHC in 2012, RICHARD agreed that the timing was not ideal but underlined that it was imperative for the linear collider community to contribute to the Strategy update in 2012 using whatever results were available at the time.

STAPNES pointed out that the LHC results were not the only factor in the equation, since the results from the various ongoing R&D projects and further technical developments would also be taken into consideration in the Strategy update. Moreover, 2012 should not be seen as a "make-or-break" deadline but as a milestone along the road leading to approval of the future linear collider, in the same way as the CERN Council had given the green light for the LHC to be prepared in 1991 but not formally approved it until 1994.

BERTOLUCCI said that the temptation of connecting the physics case for the linear collider too closely with the LHC results should be avoided simply because if the latter excluded supersymmetry up to 800 GeV, for instance, then a sizeable proportion of the ILC's parameter space would appear to be redundant at a time when the community was not yet in a position to construct a machine to cover the multi-TeV range, thus creating an awkward gap in the Strategy. The primary justification for a linear collider had always been to act as a precision machine for clarifying and exploring in detail the results obtained at the LHC, whatever they might be, and it was important for the community to unite behind that clear message.

DESCH, fully concurring with that view, stressed that the arguments for a linear collider in the 0.5 to 1 TeV energy range remained valid whatever the indications from the LHC on supersymmetry up to 800 GeV.

The Committee took note of Richard's report.

## 15. EUROPEAN STRATEGY SECRETARIAT NEWS
(Item 15 of the Agenda) (Oral)

STAPNES presented his report on the work of the European Strategy Secretariat since the meeting of Plenary ECFA in November 2009 and outlined the tentative timeline for the update of the European Strategy for Particle Physics in 2012.

Responding to a question by GEHRMANN about the status of theoretical particle physics in the Strategy, STAPNES said that the original Strategy statement had been somewhat vague in that respect and that efforts would need to be made in the forthcoming update to elaborate a more concrete plan with regard to particle physics theory.

Responding to additional remarks by MASSIERO (University of Padua, Italy) about the common CERN-ApPEC theory programme mentioned in the presentation, STAPNES said that the CERN Management had indicated to ApPEC, prior to its recent meeting in Rome, that such a programme would be feasible at CERN, in a variety of different configurations.

The precise implementation and funding details could be worked out once ApPEC had taken a decision on its own preferred configuration.

The CHAIRMAN observed that, since the process of updating the European Strategy for Particle Physics was scheduled to be "kicked off" at the joint EPS-ECFA session during the EPS HEP Conference in Grenoble in July 2011, it would be appropriate to initiate a discussion at the Plenary ECFA session in November 2010 as to how such a "kick-off meeting" might be organised.

The Committee took note of Stapnes' report.

The meeting was adjourned at 11.20 a.m. and resumed at 11.45 a.m.

## 16. EUROPEAN DETECTOR R&D COMMITTEE PROPOSAL
(Item 15 of the Agenda) (Oral)

KARYOTAKIS presented a proposal emanating from Restricted ECFA for the establishment of a European detector R&D panel (EDRDP), under the auspices of ECFA, whose purpose would be to review emerging detector R&D projects involving multiple laboratories across Europe. The panel would certainly not attempt to supplant or in any way circumvent the committees which national funding agencies might decide to set up for their own internal review purposes, but to structure and coordinate detector R&D efforts at the European level. While there would, of course, be no formal obligation to apply for an EDRDP evaluation it was hoped that the prospect of obtaining a European "seal of approval" would be attractive to all emerging "orphan" pan-European collaborations initially in the linear collider field but also, in the longer term, in neutrino or B physics. A positive assessment from the EDRDP would be seen as an important feather in a collaboration's cap and thereby facilitate its search for recognition and funding at the national level.

The CHAIRMAN proposed to proceed in two steps, firstly with a discussion at the present meeting of the desirability and principle of setting up the EDRDP and then, if the principle was endorsed, a detailed implementation plan could be submitted for approval at the November 2010 Plenary Session.

RICHARD said that it was important to be aware that a panel along the lines proposed would never be able to operate in the same way as a body like ESGARD (European Steering Group for Accelerator R&D), which coordinated the action of an entire community across Europe, preparing and conducting a coherent set of bids for funding within EU Framework Programmes. Moreover, to be a legitimate instrument in a truly bottom-up review process, it was vital for the EDRDP to be recognised and accepted by the entire community. In that

context, great care would need to be taken in the nomination of the panel members by Restricted ECFA.

BRIENT (IN2P3, France) said that he had serious doubts about the benefits of such a panel. Most of the collaborations potentially concerned by the initiative included partners from outside Europe, so an evaluation by an ECFA-sponsored panel would be of limited use and relevance. Furthermore, since the national funding agencies mostly performed their own independent reviews, a further evaluation by an EDRDP would, at best, constitute a duplication of effort and, at worst, create conflict if the two processes did not converge on the same view. Before such a panel was brought into existence it would seem vital to obtain the views of the national funding agencies.

KARYOTAKIS said that he had already been in contact with a number of funding agencies and the feedback received hitherto had been broadly positive.

DOLEZAL (University of Prague, Czech Republic) said that he generally supported the idea of a European review panel as described, but found the term "orphan projects" to be somewhat misleading and restrictive. In his view, the panel should be open to all projects in the field of high-energy physics detector R&D.

The CHAIRMAN, acknowledging that the term was not ideal, said that it should be interpreted to mean "in the pre-project stage".

DE JONG said that he shared the scepticism expressed about the need for such a panel, which would neither play a coordinating role like ESGARD nor be a compulsory part of the approval process for emerging R&D projects. Once projects received the green light from national experts in the countries participating in the collaboration, crucially triggering the award of funds, there appeared to be little added value for another panel, comprising similar experts at the European level, to perform a similar evaluation.

HEUER, supported by comments from BERTOLUCCI, agreed that national reviews would, in any case, take place but pointed out that the EDRDP would have a somewhat different purpose, namely to assess how the projects integrated into the overall R&D effort at European level.

DESCH observed said that the DESY PRC had performed such a role with some success for several ILC detector R&D proposals from collaborations not hosted at DESY. Approval by the DESY PRC had subsequently boosted the cases of individual collaboration members who had not yet been able to secure funding at national level. While collaborations were certainly under no obligation to submit to the kind of evaluation proposed, it would surely be beneficial to all concerned to receive a European "seal of approval". Finally, he was

pleased to announce, on behalf of the DESY Directorate, that DESY was fully committed to providing assistance in the establishment and operation of the EDRDP as proposed.

The CHAIRMAN, welcoming the offer, said that several solutions had been envisaged, including the simple extension of the DESY PRC but that the main considerations motivating the proposal to set up an independent panel were to open the process to domains other than the ILC and to have a European flavour rather than an organic link to a specific laboratory. That did not mean that the panel could not be physically hosted by one laboratory, DESY for instance, before moving on to another after a given period. In his view and based on his own experience, national funding agencies generally welcomed external validation of projects they were being asked to fund and he was therefore confident the initiative would be appreciated by the physicists community and funding agencies alike.

DE JONG, conceding that the EDRDP might be of some benefit if recognised by the community as being part of the normal approval process, observed that it would carry even greater weight as a pan-European body if hosted at CERN, which was generally accepted as being the central coordinating body for high-energy physics in Europe.

HEUER said that he would reserve his opinion on CERN's possible involvement until such time as the ECFA community had reached agreement on the basic principle of establishing a European detector R&D panel and begun discussing implementation details.

FAVART (University of Louvain, Belgium), observing that the establishment of the EDRDP would be neither detrimental nor of any great cost to the community, suggested the pragmatic approach of endorsing the basic principle presented by Karyotakis and inviting him and the Chairman to come forward with a detailed proposal and implementation plan for discussion at the next meeting of Plenary ECFA in November.

The Committee took note of the presentation by Karyotakis and, taking account of the expressions of support and reservations voiced during the discussion, agreed:

- to endorse the principle of the establishment of an ECFA-sponsored European detector R&D panel and
- to invite Y. Karyotakis and the Chairman to start work on implementation details with a view to bringing a concrete proposal to the Plenary ECFA meeting in November 2010 for approval.

## 17. EUROPEAN NEUTRINO REVIEW PANEL PROPOSAL (Item 16 of the Agenda) (Oral)

LONG presented a proposal for the establishment of an ECFA review panel for future large infrastructures for neutrino oscillation experiments.

STAPNES said that he could fully support the proposal, which responded to a genuine need for an oversight body to monitor the progress of the various neutrino projects under way or in preparation in Europe and to report to the main scientific sponsors, namely ECFA and the European Strategy Sessions of the CERN Council.

FOSTER, expressing his support for the proposal, pointed out that, given the international nature of both the neutrino projects covered and of the proposed panel itself, the latter was likely to be of great interest to ICFA, whose opinion it would be sensible to obtain. Some years ago, ICFA had itself envisaged the establishment of a review panel to oversee neutrino factory activities, but had ultimately concluded that the time was not ripe, given the lack of consensus within the neutrino factory community. The present ECFA proposal constituted a much broader effort to coordinate neutrino experiments in general and would presumably be viewed by ICFA in a very positive light.

The CHAIRMAN observed that the proposal had been carefully formulated to ensure that the panel's remit was restricted to the activities of European groups. The remit also included a check-point after the first round of reviews so that if a consensus as to the desirability and usefulness of the panel emerged the panel's remit could be extended to cover international neutrino activities, at which point ICFA could become fully involved.

The Committee took note of Long's presentation and agreed:

- to set up a European neutrino review panel along the lines proposed in the presentation and
- to invite K. Long and the Chairman to prepare a detailed proposal for the nomination of the panel members and Chairman for approval by Plenary ECFA at its meeting in November 2010.

The meeting was adjourned at 12.40 p.m. and resumed at 2.00 p.m.

18. SUPER-B FACTORIES UPDATES
(Item 18 of the Agenda) (Oral)

- Status of INFN SuperB

GIORGI presented his status report on INFN's SuperB project.

In reply to a question from DOLEZAL about US participation in the project, GIORGI said that SLAC and the DoE were making valuable contributions not only to the magnet system but also to a variety of key machine components.

Responding to a question from BRIENT, who wondered whether the European B-physics community was strong enough to support SuperB and LHCb, GIORGI said he was confident that would be the case. Pursuing both projects was fully in line with the community's mission to perform particle physics experiments of the highest quality.

- Status KEKB Upgrade

AIHARA presented his report on the recent approval of the KEKB upgrade plan.

In reply to a question RICHARD, AIHARA confirmed that the significant cost difference between the KEKB upgrade and SuperB derived mainly from the high current.

DELAHAYE, noting the impressive goal of increasing luminosity by two orders of magnitude, said that he could not recall any examples of such a goal being achieved in a single upgrade and would personally consider an increase by one order of magnitude to be a significant achievement. That begged the question, however, as to whether interesting physics could still be obtained with a tenfold increase in luminosity.

AIHARA, supported by GIORGI, said that a tenfold increase in luminosity would make it possible to clear out all time-dependent CP violation measurements with precision. Rarer decays such as $\tau \rightarrow \nu - \gamma$ would require another factor of ten increase in luminosity.

The Committee took note of the reports by Giorgi and Aihara.

19. CONCLUSIONS
(Item 19 of the Agenda) (Oral)

The CHAIRMAN, thanking the local organisers in Frascati, and in particular Mrs R. Bertelli, for their great hospitality and smooth organisation of the meeting, said that he looked forward to the next Plenary session on 25-26 November at CERN.

The meeting rose at 3.40 p.m.