NINETEENTH PLENARY MEETING
Geneva - 29 March 1976

DISCUSSION ON ECFA'S AIMS AND STATUTES

Comments on and Updating of the Document ECFA/RC/75/4 of 24 February 1975:

"Working Paper for the Meeting of Restricted ECFA, 20 March 1975"
Comments on and Updating of the Document ECFA/RC/75/4 of 24/2 1975:

"Working paper for the meeting of Restricted ECFA, March 20th, 1975".

Although the working paper is now more than a year old I would like to present its contents also to Plenary ECFA at this time, when we get at last the occasion to discuss within this body the aims and status of ECFA, a subject which has been on the agenda for the May 1975 meeting but which at that occasion could not be properly discussed. This delay has however, as will appear from the present presentation, allowed the situation to evolve considerably. Some problems have disappeared, new have appeared. In some cases the proposals made in the working paper have been followed, in others other solutions are being considered. It may be instructive therefore to go through point by point the working paper.

Chapter 1. The initial statement that the strength of ECFA rests on the fact that it has a flexible structure which gives great freedom of action is, I feel, still true, and should as a whole be preserved, even if the aims and status of ECFA should change.

I see no reason to change the proposal for a 3 year mandate for the chairman, nor that he can at any time be deposed by Plenary ECFA.

For a more informed account of the history of ECFA the reader is referred to document ECFA/76/6 which also gives a critical evaluation of the role and aims of ECFA by an outside observer.

Chapter 2. The aims of ECFA. The belief that the original aim of ECFA to plan and "dream" of future accelerators is too long range to warrant ECFA's existence by itself, has recently been proved wrong. On the contrary there is now a period ahead where this line must be pursued quite actively so as to allow planning of the post SPS-era in Europe. In fact such studies have already been started by Working groups in CERN. ECFA should certainly participate actively in all such studies in the future.

It is also clear that ECFA's present interest in the planning of the research at PETRA on a European basis will continue.

While therefore the original aim of ECFA should be retained I believe as a year ago that it must also concern itself with the field of problems of Working Group 3 which are of more immediate interest to the physics community.

Since the working paper was written ECFA has in fact become much more involved with the situation also at other centers than CERN, in particular by its interest in the electron-positron storage rings.

Chapter 3. ECFA's status. I have no particular comments on this chapter, which in the main lines is still valid. I do not want to uphold the proposal that ECFA should attach itself as a subcommittee in the CERN hierarchy of governing bodies. I feel however that it is proper to invite the Chairman of Scientific Policy Committee, Council Committee, and Finance Committee as observers to our meetings, as is proposed on p. 6. The ECFA chairman is allowed to assist at the meetings of these committees, a privilege which is of very great value for keeping informed and for presenting ECFA's points of view.
p. 6. The structure of ECFA.

In the working paper an alternative composition for Restricted ECFA is discussed, based on the categories of physicists, rather than on their nationalities. Restricted ECFA in its discussions did not consider that there were enough motives to change the present composition which works well. A very important argument in favour of the present structure is that the Restricted ECFA member for each country is a natural linkman to the delegation in Plenary ECFA and from there to the high energy physics community at home. This link which works quite effectively has been invaluable at many occasions. An argument against may be that a Restricted ECFA with the same national composition as Plenary ECFA is tempted to take over some of the prerogatives of Plenary ECFA, which according to our rules takes the decisions.

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The working groups form a very important part of a working ECFA. They should be formed by Restricted ECFA, or in urgent cases by the ECFA Chairman. Their creation and terms of references should be reported at the first occasion to the Plenary ECFA for approval. Progress should also be regularly reported and the final reports submitted in Plenary ECFA.

Budget.

The budget question should not be an argument for abandoning the present official status of ECFA, as long as it serves its purpose and gives ECFA freedom of action. It should not be possible to buy ECFA for 150,000 Frs.

p. 8 Chapter 4. Implementation of the report of Working Group 3.

As an ad hoc subcommittee the 4 chairmen of the Working Group 3 have met with the CERN administration to discuss and clarify the report and discuss its implementation.

At the Plenary ECFA meeting on March 29, a report by the CERN administration will be given on the implementation of the report and discussed.

Uniform standards for visiting scientist at CERN

The proposed working group has been set up and the results of its study will be submitted to March 29 Plenary ECFA meeting and transmitted to the Member States for consideration of suitable action.

p. 10. A computer link network between high energy physics institutes.

A report on some aspects of the complex is given at the March 29 Plenary ECFA.

Continued demographic surveys

Enquiries for the current survey have been distributed and most of the answers received.

p. 12. Chapter 5. Use of CERN Courrier to publicize ECFA activities

The "CERN Courrier" is now no longer an exclusive CERN publication, but is distributed all over the world with correspondents in the major high energy physics centers. A short account of ECFA and its recent activities appeared in the January 1976 issue.
Chapter I. Introduction

One of the difficulties which face ECFA at present is the fact that ECFA has no fixed rules nor a legal status. It can be argued that this is also the strength of ECFA since it gives it a great flexibility to adapt itself to changing circumstances. However, there is, for example, no rule even for the mandate period of the Chairman. I will assume that the next to previous Chairman established the period of the Chairman by a rule of precedent to 3 years, a period long enough to get involved in the work and to see some results, and, hopefully, not long enough to allow the task to become routine. I also take it that the Chairman can at any time be deposed by the Plenary ECFA, if conditions make it necessary.

These are only two, and probably the most minor, points where I think that we must establish, at least for ourselves, a certain minimum number of rules and regulations. More major questions are concerned with the aims of ECFA which I will discuss in chapter II. Historically ECFA emerged out of the so-called Amaldi Committee which made a most useful first survey of the status and extension of high energy physics in Europe and tried to devise a structure of the research embodying the European laboratory or laboratories, the national laboratories and the universities.

After the conclusion of the work of the Amaldi Committee and on the initiative of the Scientific Policy Committee through the then Director-General of CERN, V.F. Weisskopf, ECFA was created in its present form specifically to discuss a number of technical and scientific problems regarding the construction of the future 300 GeV laboratory. ECFA has indeed played an important role, particularly in the planning of the experimental programme of the 300 GeV machine, by the Tirrenia meetings. As this work has now been taken over by CERN and the SPSC and since no new European accelerators are being actively planned for the foreseeable future, ECFA's main aim has turned from accelerators, as suggested by its name, to a study of the optimal
methods for exploiting the European accelerators by the European laboratory, the national laboratories of the Member States and the universities, as outlined by the report of Working group 3. This report states a number of problems and makes recommendations for solutions. To my mind the new major aim of ECFA's activities should be to try to implement together with CERN the recommendations of the report of Working group 3 and make more detailed investigations of various problems by a series of working groups, in most cases joint working groups of CERN and ECFA. These working groups are discussed under Chapter IV.

Although the absence of fixed rules, a well defined aim and clear paths of responsibility has in many cases been an advantage for ECFA, it is necessary that we form at least in our minds a clear picture of what rules to follow, which body we should serve, how we communicate with this body to receive instructions and suggestions for our work, and how we report back to this group on the work ECFA performs to get the necessary feedback. These problems are discussed in chapter III together with some possibilities for defining more clearly the interdependence of ECFA with other existing committees.

Chapter II. The aims of ECFA

The original aim which is inherent in the name of ECFA, future accelerators, is no longer a sufficient basis for the activities of ECFA, since, apart from EPIC and PETRA, any plans for future European accelerators are dreams rather than real projects at present, and in the present economic conditions not likely to move into reality for many years to come. Members of ECFA could well participate in the dreams and comment on them, but this is hardly sufficient to merit an expensive Committee. We may possibly have to play a transient role in the two future accelerators planned in the national laboratories, the electron positron storage ring EPIC and PETRA.
Instead the main aim of ECFA must be found in the new line introduced with much foresight by Professor Salvini, namely the harmonisation of the roles of CERN, the national laboratories and the universities in the European research activities. The problems have been clearly stated in the report of ECFA's working group 3, and are becoming more and more acute as more of the high energy research in Europe is concentrated at CERN. It is clear that the problems cannot be solved by CERN alone since the wishes and needs of the visiting teams and outside scientists are often contrary to the priorities which CERN has, according to its convention, had to give to various activities within the given budget limitations. CERN needs an independent counterpart which can represent the outside groups and which together with CERN can work out long-term and short-term proposals for solutions to the problems. ECFA could play such a role, since it is indeed independent of CERN, does represent (or at least claims to represent) the whole high energy physics community in Europe, and since its absence of rules makes it flexible enough to assume such a role.

Up to now ECFA has almost entirely been concerned with the use of CERN facilities by teams from the national laboratories and universities. The relations between the national laboratories and the universities has hardly been touched upon. It could be argued that these form an equally important feature of the European high energy effort and consequently if ECFA aims at really covering the whole field it should also follow closely the research in the national laboratories. It could also be argued that the problems are usually less severe at the national laboratories, that proper mechanisms on a national scale for taking care of them already exist and that intervention by an international body like ECFA is neither necessary nor desired. The situation may change if national accelerators are built which will be used to a large extent by the whole European community, such as will probably be the case if one of the large electron-positron storage rings projects is realised.
Chapter III. ECFA's status

As mentioned in the introduction, ECFA in its present form emerged out of a recommendation of the Scientific Policy Committee implemented by a letter (enclosed as Appendix I) from the Director General, V.F. Weisskopf to scientists (Appendix II) in each Member State inviting them to designate further delegates to the new committee and defining the aims of the Committee in relation to the 300 GeV project. Formally one could therefore claim that we have received our mandate from the CERN Scientific Policy Committee, or from the Director-General of CERN, and that we should report back to them when we consider that our original instructions have been fulfilled. Since the last Tirrenia meeting, when the SPSC and CERN II took over responsibility for the SPS and its scientific use, our original task can be considered as finished but we have chosen to go on without new explicit instructions, and in agreement with the Director General the SPC entered new areas of interests. I think we are right in this line but we should at least to ourselves try to make clear what our status is.

Since we have no mandate, no instructions and practically no rules for our activities it can be claimed by our critics - and ECFA has critics - that we represent nobody and that we must be regarded either as a private club (and rather exclusive), of some 50 high energy physicists, or as a welfare society, such as, say, the Salvation Army. This may not necessarily be regarded as criticism, many private clubs and societies have very serious aims and show great generosity to worthwhile causes and, as in the case of ECFA, they can work without strict rules, which makes them very flexible in their activities. It must be admitted though that in many private clubs the meetings of the club become an aim by themselves, irrespective of the outside aims

In the case of ECFA the notion of a private club is also aggravated by the fact that most of us use government money from our countries, originally intended for research, to finance participation in the meetings.
Whom do we want to represent and to whom should we be responsible?

It is clear from the report of Working Group 3 and from our discussions that we would ultimately like to represent the European high energy scientific community as a whole, irrespective of whether the scientists are at CERN, a national laboratory or a university laboratory. It is, however, difficult to have a direct line of communication with this widespread and rather vague community. In principle one could imagine a yearly meeting of the whole community to elect ECFA members and officers and to vote on important decisions as in the Landesgemeinde of the smaller Swiss Cantons. This is however hardly realistic, but it is possible to gather a significantly large fraction of the community to occasional ECFA information meetings as we have had occasionally in the past. A possibility is also that ECFA becomes the sponsor of the "in-between years" or "Aix-en-Provence" Conferences and can use them as a forum for information and discussion.

Apart from these occasional contacts with large assemblies of the community, ECFA can only communicate either by personal contacts or by publication. The latter possibility should in my opinion not be neglected and will be discussed in Chapter V.

ECFA can rarely have a direct influence on the conditions of the scientific community, since ECFA has not and cannot have any power by itself. ECFA can only act by making recommendations to other organisations, CERN, the national laboratories and the authorities of the Member States. ECFA has to work very closely with CERN and the national laboratories to find acceptable solutions. On the other hand it is important that ECFA is independent of the established organisations. In my opinion the most fitting place for ECFA in the hierarchy of committees in High Energy Physics would be as a sub-committee of the CERN Council, which has directly the power to implement ECFA's recommendations for actions which concern CERN and also has a direct line to governments in the Member States if the
recommendations concern them. One has to define clearly the fields of interest of ECFA, so as not to overlap with the field of the Scientific Policy Committee (SPC). Another alternative is to make ECFA a subcommittee, not of Council directly, but of SPC, but this has the disadvantage of introducing one more step in the lines along which results can be obtained. Whatever the hierarchy, Council, the SPC, and ECFA should have efficient connections with each other. It may be sufficient that the Chairman of ECFA can participate in the meetings of the Council Committees and in SPC and report on ECFA activities, as is already the case, and we should, on our side, welcome the Chairmen of these bodies at our meetings.

The structure of ECFA
The present structure of ECFA with a restricted ECFA, having one member from each Member State, and Plenary ECFA, having several, emerged from the letters of Weisskopf in 1965. Although this structure has worked well in the past we should consider whether changes should be made in view of the changing aims and status of ECFA. In particular I feel that Restricted ECFA with its national representatives is no longer harmoniously suited to an activity which specifically aims at the problems related to the triangle CERN-national laboratories-universities, whereas the differences in problems from one Member State to another are much less important. A possible alternative composition for a Restricted ECFA of about the same size as the present could be the following:

Chairman and secretary
2 CERN members
1 member from each of 4 major national laboratories
5 members from universities
Chairmen of ECFA's current working parties
Ex officio: CERN DG's, Chairman of SPC and Council

This denationalised restricted ECFA would in a sense be a complement to the plenary ECFA where I see no immediate reason to change the present principle of national representation.
An important feature of ECFA's structure must be the working parties created for special tasks. Although some of these may have to be of a perennial nature, one should in general aim at working parties which during a period of intensive work arrive at a conclusion and can then be dissolved. This aim can be achieved if the participants in the working parties are recruited among the junior physicists at one place, usually CERN but sometimes the national laboratories, so that they can meet easily. In this way ECFA by these working parties will also have an important line of communication to the junior physicists and could engage them directly in its activities.

The working party must also have participation from CERN or the national laboratory concerned and should in fact be considered as joint CERN-ECFA working parties.

In this structure the secretary would have an important function in guiding and correlating the work of the working parties. It is probably necessary that he be resident in Geneva where most of the work of the working parties would be taking place. He could be chosen among the visiting scientists at CERN or from the University of Geneva.

Budget
Up to now ECFA has had no budget and its expenses for meetings and surveys has been covered in rather undefined ways by the home authorities, probably in some cases using funds which are really provided for research.

The order of magnitude of the expenses for running the present ECFA is about 150,000 SF. The new aims will probably lead to an increased activity and increased expenses. It can be maintained that these expenses are a drop in the ocean compared to the budget of CERN.
As a question of principle, however, ECFA should not be financed by CERN, and if we should also avoid the expenses being taken out of the meagre budgets of the Member States for research and for subsistence and travel of the younger and active scientists, we should have a budget of our own. If ECFA becomes a subcommittee of the Council and the SPC it is natural that its expenses would also fall within the budget for running the Council Committee system.

Chapter IV. Implementation of the report of Working Group 3

To my mind the excellent report of the Working Group will form a basis and an inspiration for the work of ECFA for a long period to come. Many of the problems localised in the Report are of a perennial nature and should be watched continuously or at regular intervals. Others can possibly be solved once and for all by suitable action. It is clearly beyond the task of ECFA, to attack immediately and simultaneously all the problems raised in the Working Group Report. A limitation would have to be made to particularly urgent problems. It is also important to attack problems which can make credible ECFA's presumed role as a representative of the junior scientists particularly from outside.

The following by no means exhaustive list of problems may serve as an example.

Uniform standards for visiting scientists at CERN

The conditions for scientists of the same category and doing the same work varies considerably depending on the rules and financial conditions of the home laboratory or research organisation. The extent of these variations has as far as I know never been investigated. While in the more favorable cases the conditions are aligned on the CERN salary system, I fear that cases exist where scientists live in misery, perhaps on a half time university assistants salary, which is more and more devaluated by the currency rate development. They may not be covered by the medical insurance of their home country and other social benefits. The least ECFA could do would be to
investigate on what principles the size of the salaries for different categories and the methods for refunding subsistence and travel expenses, lodgings, schooling etc. which are applied by the institutes sending visiting scientists or teams to work in CERN are based. On the basis of this survey it should be possible to work out recommendations to the Member States via Council at least on some minimal requirements, possibly on a set of uniform principles for remunerating the visitors irrespective of their home station.

The problem is clearly very complex, but also very important for the atmosphere in the laboratory, and it is in particular of great importance to junior members of the scientific community.

Use of CERN facilities and services by outside teams.
The visiting teams profit from a number of important services in most cases generously provided free of charge by CERN. We use offices in CERN buildings, make long distance calls, use secretarial help, profit from the CERN health physics and medical services and use the library. Some of the services are however charged for. This is in particular the case for the mechanical and electronic workshops, and for special workshops such as the scintillator workshop. Even though CERN teams are also charged according to the same rates, in their case it is not real money which is involved but only a question of internal bookkeeping at CERN. For the visiting teams it is real money, and Swiss Francs at that, which have gone up in value considerably as we all know.

One could question the whole principle that visiting teams have to pay for work in the CERN workshops, in which they have already once paid the machines and the salaries of the mechanics by their CERN contribution. On the other hand it is clear that the visiting teams cannot be given unlimited free access to the workshops, as this would undoubtedly lead to abuses and interfere seriously with the work in CERN. Some reasonable compromise should however be possible to achieve, where a visiting team with an accepted experiment receives an allocation of a certain amount of workshop time and has to pay only when this time has been
exceeded. In the past CERN has always been willing to discuss individual cases on their own merit and contributed to solutions. Some of the uneasy feelings which undoubtedly exist among the visiting teams about the workshop situation could be dispelled if some solution along these lines could be found.

An anomaly in the use of CERN facilities by experimental teams lies in the distinction between CERN teams and pure visiting teams. No pure CERN teams exist, and usually the CERN physicists are a minority with respect to the visitors even in a CERN team. Nevertheless they are treated quite differently. The CERN team receives a CERN budget and the allocation of, for example, computer time is much higher for a CERN team than for an external team. It would again dispel the uneasiness among the visitors if the distinction between CERN and outside teams were abolished and the allocations of CERN resources decided purely on the basis of the need of the group and the resources it can mobilise at home institutes.

A computer link network between high energy physics institutes. The suggestion made by M.G.N. Hine to investigate the possibility for a European system of computer links between CERN and institutes in the Member States, such as already exists with the Rutherford Laboratory would seem to be an extremely interesting way of improving the communications between the corners of the triangle CERN-national laboratories-universities, and could well enter into the activities ECFA could sponsor to implement the Working Group 3 report. As pointed out in a report by J.H. Sens, such a network could be useful far beyond the mere use of remote computers, since it would, at least if the European telephone authorities so allow, allow person-to-person communication on a far more efficient scale than mere voice telephone calls, and could therefore make possible joint projects between distant laboratories. This is certainly a possible development which ECFA should follow carefully.

Continued demographic surveys. The series of surveys of the situation in the high energy physics.
community which at 2 year intervals have been carried out by ECFA, under the very able direction of its Secretary, D. Harting, are the basis not only for the work of ECFA but also for Council and SPC and for the authorities in the Member States. Undoubtedly the continuation of these surveys is an important point on ECFA's programme, I hope that D. Harting, who already long ago announced his intention to resign as Secretary of ECFA will agree to continue to be in charge of these surveys.

Extension of the CERN instrument pool to cover the needs of visiting teams.

One of the most important features of the facilities offered by CERN is the pool of standard instruments, mainly fast electronics and datahandling units (CAMAC) from which experimental teams can draw equipment on loan for their experiments. Visiting teams have also been able to take advantage of this facility to a limited extent to tide them over short-term needs of apparatus, or the waiting periods due to delivery times for ordered equipment. As a rule, however, a visiting team has to buy and bring along its own equipment even if built up to standard units, and without any certain use after the conclusion of the experiment. Partly this has been due to a deliberate wish of the visiting teams to start an experiment with brand new equipment and to a mistrust of the reliability of old. On the other hand it is clearly a luxury which will in the present economic conditions become more and more difficult to justify.

Ultimately one could imagine a state where a group comes to CERN with bare hands and sets up their experiment by drawing instruments such as wire chambers, counters and electronic equipment from the intrument pool, being provided with magnets and separators by the experimental support teams. This stage is certainly utopian, but one could go some distance along the way by increasing the size of existing pools, improve the recuperation of reusable items from finished experiments, and improving information on what exists in CERN stores and instrument pools. Some of the actions, such as increasing the size of the pools, will require
budget expenditure and would therefore have to be seen as a long term programme whereas others could be realised on a much shorter time scale.

Chapter V. Use of CERN Courier to publicize ECFA activities

ECFA will regularly need a line of communication with the scientific community it intends to serve. Although the present system does define as the responsibility of the Restricted ECFA member the responsibility to channel information further to the scientists in his country and to receive their comments, criticisms and suggestions, I am not sure that this method is sufficiently efficient and has adequate coverage. I therefore feel that we should consider publishing our activities and proposals in a suitable form. A special ECFA journal is out of the question. Of existing publications, the CERN Courier seems to have the right distribution of readers, and preliminary discussions have shown that the Editors would welcome information and reports from ECFA in its columns. The obvious objection that the CERN Courier represents the CERN establishment of which ECFA should be independent, does not appear very serious. Looking at the contents it is already very general and treats quite freely subjects outside CERN. I am confident that there should be no difficulty in publishing ECFA reports in the CERN Courier even if they contain constructive and positive criticism of conditions in CERN or its relations to other institutions.

The CERN Courier would provide a line for passing information from ECFA to the scientific community. The feedback in the opposite direction for comments, criticism, new ideas and suggestions from the scientists to ECFA is more difficult to achieve. I have discussed with the Editors of the CERN Courier the possibility of a letter to the Editorial column, but the result of such columns in other journals is not always encouraging. A selective publishing of the different viewpoints on the problems with which ECFA is involved may be a method which could trigger more comments from persons who normally would not write letters to the Editor. If ECFA gets known and appreciated by its activities in favour of our community the feedback may come by itself once the persons to contact are known.