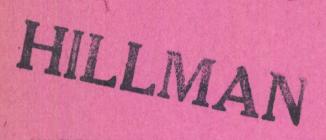
COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMUNICATION OF THE COMMISSION TO THE COUNCIL

ON THE JET SITE

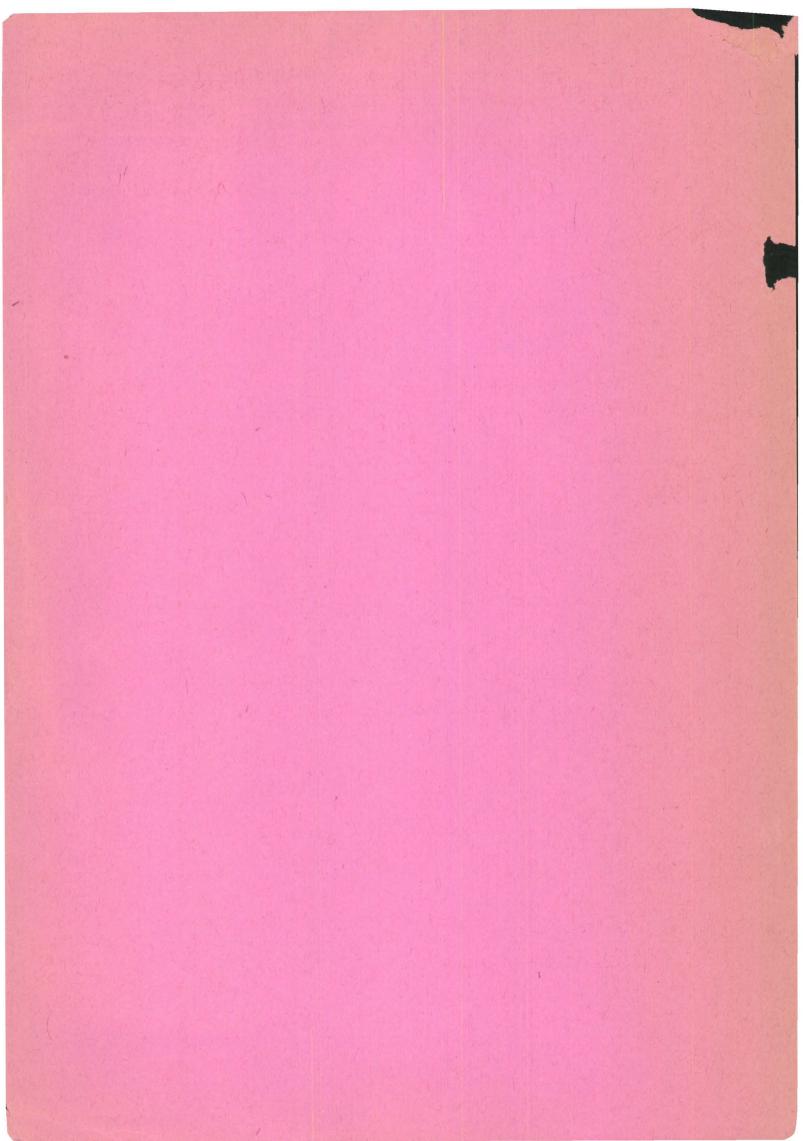
COMMUNICATION FROM THE COMMISSION

TO THE COUNCIL

RELATING TO THE ORGANISATIONAL STRUCTURE

OF THE FUSION PROGRAMME OF THE

COMMUNITY



I. INTRODUCTION

- 1.1. It is established that decisive advances in the production and confinement of plasmas having the conditions requisite to achieve thermonuclear fusion demand the construction of very large and therefore very costly apparatus.
- 1.2. For this reason, the launching of such experiments could not reasonably be envisaged except on the basis of encouraging results previously obtained on smaller and less costly machines. The prospect of obtaining such results during 1971-75 has been apparent in the case of the Tokamak line since the start of the third quinquennial programme. During this period, encouraging results were obtained, especially in Europe and USA, and the latest results during the last few months have exceeded expectations.
- 1.3. As early as 1971, on the recommendation of the Groupe de Liaison, a working group was formed from specialists of the Community laboratories, to determine the global parameters of a large Tokamak apparatus (JET). Following a proposal by the Commission based on the results of this working group, the Council allowed a project team to be set up by virtue of its decision of 17th December 1973. This team was formed from specialists detached from all associated Laboratories, and it has been hosted at Culham Laboratory in order to establish the detailed project for a large-scale Tokamak.
- 1.4. The <u>pre-project</u> established by this team was subjected to thorough discussion and improvement by the Partners. They gave it <u>unanimous</u> approval in 1974. On this basis, the team then proceeded with elaboration of a detailed project of which a summary (Report R-7) has been widely distributed.
 - * This report represents the overall assessment established by the Commission according to the provisions of Contract No. 030-74-FUA relating to the design phase of the JET project, and particularly to its Article 10-3.

- 1.5. The opportuneness of launching such studies was confirmed by the fact that the USA (TFTR project) and Japan (J-T 60) embarked on studies of projects of a similar size. The Russians for their part propose to launch a project (T-20) which is even more ambitious although requiring more time for construction. From many official international contacts, and from exchanges of information, it was clear that the European projec was in advance by comparison with the other projects of similar size.
- 1.6. In contrast to the policy followed in the USA, where the choice of site for the TFTR project preceded the establishment of project studies, but in a similar way to that which seems to be followed in Russia and Japan, the JET contract for the design phase did not provide for an initial site selection but only for a procedure to arrive at a choice. This policy has been mainly determined by the lack of knowledge, at the time of making the contract, both of the technical requirements for JET and of the possible influence of the site choice upon the future Community programme.
- 1.7. It should be made clear that Jet and the analogous projects TFTR, J-T 60 and even T-20, are still far from a real reactor but form an essential stage on the route to fusion. After JET, at least two other more complex and costly stages are needed to attain the final objective. The first of these, the D-T burner, is already planned as the subject of preparatory studies during the 4th quinquennial programme (1976-80). After that, a prototype reactor might be considered. It is clearly not evident that these later stages, of a more pronounced technological nature and demanding a greater effort, should be developed on the same site as JET.

II. THE PROBLEMS TO CONSIDER

2.1. Concurrently with the technical work carried out by the project team, the Commission has in conformity with the JET contract and in close consultation with its Partners, looked for adequate solutions to the problems connected with the <u>organisational structures</u> which the project requires.

2.2. Organisational Structure for the Construction Phase

As far as the management structure for the construction phase is concerned, a formal agreement has been reached between all the Partners. Annex I attached to this document describes in detail the tasks, functions and composition of the various bodies involved:

- the 'JET Council' at high level, meeting once or twice a year, and adopting decisions or advice on a 2/3rd majority;
- the 'Management Board' meeting at least once a month, and ensuring management of the project by a simple majority;
- the Head of the Project, given extensive powers;
- the staff.

These structures will ensure for the project a Community character whatever site is chosen, and can also ensure its independence in relation to the local management bodies, with whom a close collaboration must be established.

2.3. The Procedure for a Site Choice

Concerning the choice of a site, the following steps have been taken:

- 2.3.1. A Site Committee, composed of members nominated by each Partner, chaired by a Commission representative and helped by experts from the design team, has been set up.
- 2.3.2. On the basis of a questionnaire established by this Committee, seven site proposals were received in September 1974: CADARACHE, CULHAM, GARCHING,

GRENOBLE, JULICH, ISPRA and MOL.

The candidature of GRENOBLE was later withdrawn.

- 2.3.3. To produce their report, the Committee formed 4 sub-groups to handle the following aspects:
 - a) electrical power supplies
 - b) the problems connected with <u>safety</u>, the use of <u>Tritium</u>, and the <u>activation of materials</u>
 - c) the availability of services and adequate infrastructures
 - d) the existence of social conditions for a multi-national staff and for their families, including facilities for transport and for access.
- 2.3.4. The Commission notes that the Site Committee only formulated qualitative evaluations on these points. The following table shows a synthesis of these evaluations:

	CADARACHE	CULHAM	GARCHING	ISPRA	JULICH	MOL
Electrical power supplies	good	very good	good	excel- lent	very good	fair
Tritium,						
Activated materials,	excellent	fair*	fair	very good	very good	very good
Safety						
Supporting facilities	good	good	good	good	very good	fair
Social aspects (conditions of wel	very good lcome)	fair	very good	excel- lent	fair	good

On the basis of this table, the best site for the construction of JET is ISPRA.

The Commission would have no objection to accepting the proposal of the UKAEA to change 'fair' into 'good' for this marking in relation to CULHAM.

- 2.3.5. The Site Committee also considered the success of JET to be dependent upon:
 - a close and continuous collaboration with the project by all the Fusion Associations of the Community;
 - the presence in the team during the construction phase of an adequate expertise in engineering and the control of contracts;
 - the presence, particularly during the exploitation phase, of a sufficient number of physicists expert in the field.
- 2.3.6. In February 1975 the Site Committee sent its final report to the Partners so that they could make comments upon it. These commentaries were sent to the Commission in March and April 1975.
- 2.3.7. The Commission notes with interest that in their commentaries, all Partners underlined the quality and objectivity of the Site Committee's work. The commentaries also stressed the following points:
 - a) whether or not it was appropriate to create a new fusion centre at this stage;
 - b) the possible importance of putting the project in a centre possessing an environment of people competent in plasma physics;
 - c) the value of pledges of support to the project which member States, or some of their organisations, could give in order to minimise the various risks associated with the project in case of difficulty;
 - d) the influence of the JET site upon the whole fusion programme.
- 2.3.8. During 1975 the Commission has pursued its study of the site problem, on the one hand by exchanges of information during visits which were made to the relevant authorities in member States, and on the other hand by a careful examination of the actions which would need to be taken for the implantation of the project at four of the proposed sites (CADARACHE, CULHAN, GARCHING and ISPRA).

III. ANALYSIS OF THE SITES

On the basis of the Site Committee report, of the Partners' commentaries and of other information received, the Commission has made a more thorough analysis of the problem, of which the results will be discussed, as the Council wished, under the following headings:

- 1) the technical aspects
- 2) the scientific aspects
- 3) the Community aspects
- 4) the financial implications

3.1. Technical Aspects

- 3.1.1. These aspects have been analysed in detail by the Site Committee, whose report describes the material facilities offered at each site. The most important component in this case is the material component, which can involve possible savings in time and money. As far as the human component is concerned, support from qualified technicians could be particularly important during the assembly of the various elements of the machine.
- 3.1.2. In technical and technological aspects, especially during the construction phase of the project, the centres of JULICH, CADARACHE, ISPRA and MOL show more advantages than the other sites, because they have available locally staff and equipment which are better for heavy engineering, particularly mechanical engineering. In contrast, CULHAM, GARCHING and JULICH are best equipped for certain kinds of fine technology which are specific to fusion.

The centres of CADARACHE, ISPRA, JULICH and MOL are on the other hand well equipped for the problems of handling activated material, radio-logical protection and medical supervision, for which solutions will prove necessary during the realisation of the ultimate aims of JET.

3.2. Scientific Aspects

The most important factor in this case is the human component.

3.2.1. The influence of a local scientific environment cannot be neglected.

It results mainly from the discussion with external experts, when the need arises, of problems of common professional interest. The local availability of such an environment is certainly of interest, but it does not appear that either for the construction phase or for the exploitation phase, the existence on site of a strong local environment of plasma physicists, outside the JET team, could be considered essential in case of difficulty. Generally speaking, difficulties which are not commonplace are not resolved in a few hours, but demand several months.

Already during the present design phase, the influence exerted on the project through "workshops" and study contracts has shown that contributions from all the laboratories have been significant, including of course that from the host laboratory. When a problem arises either in design or in a series of measurements, worldwide experience shows that the essential factor is not necessarily the presence on site of a "reserve" team whose availability will depend anyway on its own programme. It is more important to ensure rapid access of information to the specialists concerned and to gain their collaboration, and in this way to increase temporarily the human resources of the team.

- 3.2.2. As far as the phase of experimentation is concerned, the situation is broadly similar. For classical diagnostic methods, the skills are included in the staff planned by the design team. If special diagnostic methods nevertheless prove necessary, these can be developed as well if not better by specialist groups working on other machines, whether on site or elsewhere.
- 3.2.3. The sites of CULHAM and GARCHING have a large environment of professionals and technicians specialised in plasma physics, closely followed by JÜLICH.

If, as indicated by the French representatives, all the teams now working at Fontenay-aux-Roses were transferred to CADARACHE where no specific competence in plasma physics

currently exists, then the centre of CADARACHE should be included in the same group. However, in view of the programme in progress at Fontenay-aux-Roses and its forecast extensions, the Commission judges the operation to remain delicate and complex.

ISPRA has a modest competence in fusion matters (work on conceptual studies). MOL has no experience at all in this field.

Sufficient use of a mobility contract will allow research workers to contribute to the project from a circle geographically dispersed, but with a maximum of competence.

3.2.4. In the Commission's opinion, the JET machine must not be considered as an operation which demands the concentration on the site of all the satellite experiments which could be associated with it, but as part of a programme in which all the laboratories of the Community which are interested in developing the Tokamak line are engaged.

A significant distribution of the work for JET between the different Community laboratories seems of basic value, both to increase the cohesion of these laboratories and to engage for JET the collective responsibility of them all.

3.3. The Community Aspects

Taking into account the management structures already agreed between all the Partners, the autonomy and Community character of JET will be assured whichever site is chosen. This applies in particular to the scientific, industrial, legal and administrative aspects, to the diffusion of information and to the patent provisions. However, in order to realise fully these characteristics, the Commission considers it necessary to ensure that a truly Community team can be brought together on the site, with adequate Community services and facilities.

- The very nature of the project, and its implications for the Community programme, require that a multi-national team of 2-300 people should be brought together in one place, with adequate provisions for replacements. This multi-national core appears too small to justify new Community facilities.
- 3.3.2. The Commission estimates that the participation of the host site in staffing the project should amount to about 1/3rd of the total staff, another third coming from the laboratories of the Associations and the last third from industries participating in the construction of the project.

A greater participation of staff from the host laboratory does not seem desirable since it could put at risk the Community character of the project, except at the ISPRA site where the participation of local staff would already have an international character.

3.3.3. One condition to satisfy the criteria mentioned under 3.3. is the presence of a European School. The centres of ISPRA and MOL already have them, and the opening of such a school at Munich (GARCHING) is forecast. The centre of ISPRA has also services of an international character. In the case of ISPRA all these services are, to some extent, under-utilised.

3.3.4. In view of the global and integrated nature of the fusion programme, the Commission wishes to ensure that the construction of JET does not cause any upset to the essential parts of the rest of the Community fusion programme.

Some difficulties could arise in satisfying this second criterion if JET were installed at GARCHING or at CADARACHE.

The centre of GARCHING is already engaged in a large research programme linked with first priority to the stellerator programme. During the next quinquennial plan, this will be exclusively pursued at this centre in view of the construction and exploitation of W-VII, which will be the largest apparatus of this type, and from which the results are awaited throughout the fusion world. In second priority the GARCHING programme is tied to the building of a Tokamak apparatus (ASDEX), conceived in order to study the implantation in this type of machine of an axisymmetric diverter. It seems difficult to build JET in this centre without affecting these two activities which are of great Community interest.

In the case of CADARACHE, it can be feared that the operation of transferring the Fusion Department now at Fontenay-aux-Roses could delay and upset the exploitation of the TFR machine, which gives extremely useful results, as well as the developments forecast for this experiment. Moreover, the simultaneous installation of the JET project and the fitting-in of groups coming from Fontenay could complicate the organisational problems.

Concerning CULHAM, in the framework of an expanding programme the Commission views with favour the concentration in this centre of work in the line called 'high-beta', especially the project of HBTX II. If JET were installed in this centre, all precautions should be taken to preserve this line of work.

3.3.5. To sum up, one can say that ISPRA has available all the Community facilities to receive a multi-national team; in this field ISPRA is followed by GARCHING. As far as implications for the other essential parts of the Fusion Programme are concerned the choice of ISPRA is the one which least affects the work in progress.

3.4. The Financial Aspects

3.4.1. The JET budget, as presented in the detailed technical report (R-5) and summarised in the report EUR-JET R-7 (The JET Project) is as follows:

TYPE OF EXPENDITURE (1)	Amount (MUC)
THE JET DEVICE (comprising Mechanical structure, Toroidal field magnet, Core and outer coil support structure, Poloidal field windings, Vacuum vessel, Limiter, Miscellaneous, Spares, Transport).	29.1
AUXILIARY SYSTEMS (comprising Pumping and Cooling systems, Assembly and Maintenance systems, Additional Heating systems)	9.0
POWER SUPPLIES (for Toroidal and Poloidal field systems; Auxiliary power supplies)	22.5
CONTROL, MONITORING, DATA ACQUISITION (comprising Computers and peripherals, Control station and connections)	3.5
DIAGNOSTICS	3.5
OPERATING BUDGET (Preparation of the operation phase, Test and commissioning of the device, Provision for modifications)	8.9
BUILDINGS (Assembly hall and Torus hall, Power supplies areas, Cooling tower, Rental auxiliary buildings)	15.3
MANPOWER (Team for construction phase and preparation of operation phase, Overheads, Travel)	31.9
RESERVE	11.3
,	135

(1) Budget established in March 1975, starting from national currencies and converting to Belgian francs, 1 UC equals 50 BF.

The budget presentation of 135 MUC* corresponds to evaluations for each item resulting from study contracts and from preliminary offers by industry. The manpower item was evaluated on the basis of the cost of Commission staff.

It must in addition be noted that the amount of 135 MUA defined monetarily as above, represents expenditure relative to the first phase of the project. Further expenditure will be necessary to permit the ultimate performance to be obtained, which will be included when the fifth quinquennial plan is formulated.

- 3.4.2. Apart from transport costs, for which the difference in price is not negligible for some components according to the site location, the headings 1), 2), 4), 5) and 6) are independent of the location of the site, corresponding to about 40% of the project costs. They represent the cost of various elements of the machine which will, in the main, be ordered from European industry on the basis of calls for tenders.
- 3.4.3. Three items can depend on the choice of site, representing about 52% of the project costs:
 - 3) Electrical power supplies (about 17%)
 - 7) Buildings (about 11%)
 - 8) Staff costs (about 24%)

These three items can differentiate the sites by cost, although as will be apparent from the following paragraphs, this represents only a modest percentage of the total project

The Commission has proposed to put 80 % of this amount on the Community budget, 20 % being undertaken by the Partners.

costs.

3.4.4. It should be noted that the costs shown above presuppose the availability on site of electrical power and certain buildings and services. In some cases, and to a variable extent, this can involve a supplementary financial effort by the host country. On the other hand some elements such as the supply of staff and services (whose cost is already included in the 125 MUA) can mean a financial movement in the opposite direction for the host country.

Electrical Power Supplies

- 3.4.5. The possibility of supplying JET with the necessary electrical power and energy is the first of the matters affecting the site choice, not only for the basic performance but also for the ultimate performance of the apparatus.
- 3.4.6. To put the site into a condition to satisfy JET needs, one must consider the installation of a line, of which the length and the cost, including the local equipment, are respectively:

	km	MUA
CADARACHE	54	3.6
CULHAM	. 0.5	1.5
GARCHING	20	9.2
ISPRA	0.8	0.8
JULICH ;	6	1.7
MOL	50	11

The costs of these lines are not included in the actual JET budget, and must be a charge on the host country.

- 3.4.7. The electrical power thus made available involves:
 - either the possibility of taking the power directly from the network
 - or the need to resort to the installation of rotating machinery if the power furnished by the network is limited.

The comparison of installation costs for the two systems must be completed by the comparison of their operating costs.

The technical data obtained, both from study contracts and from independent analyses, show that the installation costs of systems taking the energy directly from the network are less than when rotating machines are used. In any case of incident, the former systems are quickly repairable whereas the replacement of rotating machines can take much longer.

According to the information gathered by the Site Committee, the ISPRA site makes it possible to take 450 MW from the network, without any need to install compensating systems, for almost any operating regime of JET. In this respect it offers the best technical possibilities, and at the most only one rotating machine of simple design would be needed to provide the maximum performance forecast for the project.

At the other sites, on the basis of the Site Committee's information, it appears that one or more supplementary rotating machines would have to be installed to provide the maximum performance envisaged.

This gives a real economy of about 2.5 MUA in the project budget if the ISPRA site is chosen.

It should be noted that at each site other then ISPRA, it would be possible to install supplementary lines to permit greater recourse to the network, and so to limit the number of rotating machines, but this implies a higher cost to be borne by the host organisation or the host country.

3.4.8. From the information given to the Site Committee by the competent local authorities, the estimated cost of 5 years' operation is:

CADARACHE	4.5	MUA	ISPRA 3.4	AUM
CULHAM	5.1	AUM	JULICH 8.4	MUA
GARCHING	8	MUA	MOL 5	AUM

The Buildings

- 3.4.9. Apart from the buildings specific to the machine and its auxiliary equipment, for which the cost invluded in the 135 MUA can vary slightly between the sites, on the latest estimates of the project team they will need on average a working area of about 4000 m² for 5 years to be furnished by the host organisation.
- 3.4.10. The construction cost of these building (about 2.5 MUA) is small compared with the total project cost. The centres of MOL, JÜLICH, GARCHING, CULHAM and (on latest information) CADARACHE cannot put this space at the disposal of the project team without new construction, the cost of which might be amortised by a rent charged to the project. It appears that at least 3000 m² of suitable buildings are immediately available at ISPRA, without charge to the project and adjacent to the site planned for the special project buildings.

Staff and Infrastructure Costs

3.4.11. The financial implications of the site choice as far as staff costs are concerned are more complex to analyse.

It appears essential, in order to attract research workers and engineers on a Community basis to the maximum extent, to have an adequate personnel statute both for the construction and exploitation phases of the project. The Commission proposes to use with some flexibility the statutory conditions relating to temporary agents, at least for the staff not belonging to the host organisation.

As far as the staff not provided by the host centre are concerned their cost is independent of the site, apart from a slight effect due to the "correction coefficient".

As regards the staff put at the project's disposal by the host organisation, about 1/3 of the total, to the extent that they remain under their national staff conditions, a distinction must be made between ISPRA and the other sites. In the latter case some saving in the project budget appears possible; this would be very slight at GARCHING and CADARACHE and more substantial at CULHAM.

The Commission wishes these arguments to be treated with caution. For many years, one has seen the salaries of research workers change considerably in the different Community countries; consequently it would give little weight to an instantaneous comparison of salaries in the case of a project lasting about 15 years.

In the case of ISPRA, the staff who would be detached to the project have already a Community character and statute. The detachment to this project of about 100 staff as already forecast represents a definite and substantial saving (about 8 MUA) to the Community budget. Similar arguments are equally valid for the use of local infrastructures.

- 3.4.12.1 In the case of CULHAM, a slight saving in the staff costs is found, to the extent that it would not be necessary to move the team which is already installed there.
- 3.4.12.2 The question of conditions applicable to the personnel will be the subject of a separate communication.
 - * "Overall Concept for the next Multiannual Research Programme of the JCR" (doc. R/3058/75 (ATO 180))

3.4.13. To summarize, one can say that as far as investment costs are concerned there is in the case of ISPRA an economy of about 2.5 MUA in the power supplies, to which can be added a similar saving resulting from the existence of buildings.

As far as the staff costs and those of utilising infrastructures are concerned, savings in the actual project budget are possible at CULHAM (3-4 MUA at present salary levels) and to a lesser extent at other national sites. By contrast, a substantial saving (about 8 MUA) for the Community budget appears at ISPRA.

CONCLUSIONS

The foregoing analysis confirms the evaluations of the Site Committee, which made it apparent that ISPRA is the most suitable site to receive the project.

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The analysis of Community and financial aspects also shows that the site of ISPRA is the best placed. In the technical aspects, the ISPRA site is well placed among other sites.

As far as the scientific aspects are concerned, for the reasons set out, the Commission does not consider that the presence or absence on the site of previous experience in plasma physics is determinant.

The Commission concludes that the site for JET must be ISPRA. It asks the Council to give its opinion on this choice.

MANAGEMENT STRUCTURE FOR JET CONSTRUCTION

AS AGREED BY THE PARTNERS

The management structure will operate within the aims and overall costs of the JET project defined as part of the next pluriannual fusion programme to be decided by the Council of the European Communities.

Furthermore the structure is only directed to the special needs of the JET construction and will need to be reconsidered and adapted to the operation of JET. In any case it must be ensured that an effective and continuous collaboration and interaction will be established between the project and the Associated Laboratories which have to be strongly involved in and committed to the project and consider it as a common venture.

The legal form of the project should be decided later on when the site of JET is known depending on a large extent on the law of the host country. In any case it will be set up as a project which is clearly distinct from the host research organisation and its activities.

The interface between the JET management organisation and the host research organisation will be defined in detail in order to arrive at a clear division of responsibilities between the JET management organisation and the host research organisation, respectively.

Management structure

- 1. JET Council
- a) The JET Council shall
 - advise on the overall general management of the project and on general scientific, technical and administrative policy matters,

- on proposal of the Management Committee, appoint the Head of Project,
- recommend on proposal of the Management Committee and within the limit of the total funds appropriated for the project the annual budgets, including staff,
- prepare matters needing a decision of the Council of the European Communities,
- comment on and endorse annual reports on the progress of the project and its financial situation.
- b) It shall be composed of members appointed by the partners as follows:

Belgium	1
Commission	
Denmark	1
France	2
Germany	2
Creat Britain	2
Italy	2
Netherland	1

The composition of the JET Council will be reviewed in case other partners join the project. Partners may nominate alternates. The JET Council will constitute its own internal rules.

- c) Decisions of the JET Council will be taken by a 2/3 majority of its members.
- d) The JET Council shall meet once or twice a year and may create subcommittees.

2. Management Committee

a) The Management Committee shall be composed of eight members appointed by the partners after mutual consultation, the members having the

following rights of vote:

Belgium	1
Commission	2
Denmark	1
France	2
Germany	2
Great Britain	2
Italy	2
Netherlands	1

Its composition will be reviewed in case other partners join the project.

The Head of Project will attend the meetings of the Management Committee.

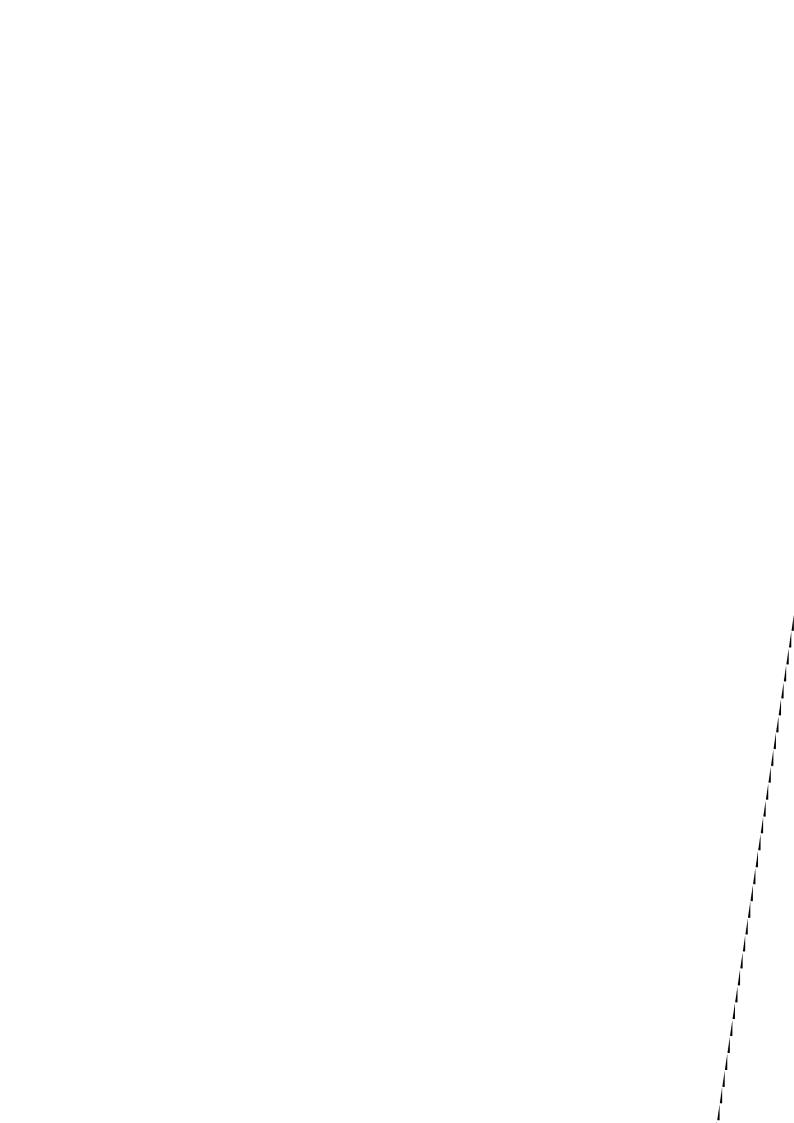
- b) The Management Committee shall assure the effective management of the project by developing the guidelines and controls under which the project is directed by the Head of Project.
- c) The Management Committee should meet about once a month and its specific functions include:
 - review and approval of the project development plan, including scientific and technical programme objectives and concepts,
 - proposal of the annual budgets and staff to the JET Council.
 - proposal of the Head of Project to the JET Council.
 - approval of the main structure of the project team and on proposal of the Head of Project appointment of the senior managers.
 - deciding on the award of contracts above 50.000 UA,
 - ensuring efficient collaboration between the Associations and the project,
 - taking whatever additional initiative it deems necessary to ensure the successful completion of the project.
- d) The Management Committee shall decide with simple majority of voting rights.

3. Head of Project

- a) The Head of Project is responsible for directing the execution of the Project.
- b) His specific functions include :
 - developing and updating the project development plan which shall specify the plan for the execution of all elements of the project,
 - executing this plan after approval by the Management Committee,
 - preparing the annual budget including staff,
 - organising, directing and supervising the project team,
 - coordinating the activities of all elements of the project to ensure effective performance in the execution of their responsibilities.
 - awarding contracts of up to 50.000 UA and proposing to the Management Committee the award of contracts above 50.000 UA,
 - directing and coordinating contractors' efforts,
 - preparing accurate and complete project management reports to keept the Management Committee and the JET Council fully informed of the current status of the project, in particular with regard to schedules, funding and performance,
 - identifying and devising effective solutions to management and technical problems which arise during the course of the project,
 - seeking the assistance of the Management Committee in a timely manner when necessary to achieve the objectives of the project,
 - taking whatever additional initiative he deems necessary, within organisational structure and guidelines, to assure the successful completion of the project.
- c) The Head of Project shall be assisted by senior managers who will be appointed by the Management Committee on his proposal.

4. Project Team

The Project Team will be composed of personnel seconded by the partners in agreement with the Head of Project and of temporary staff.

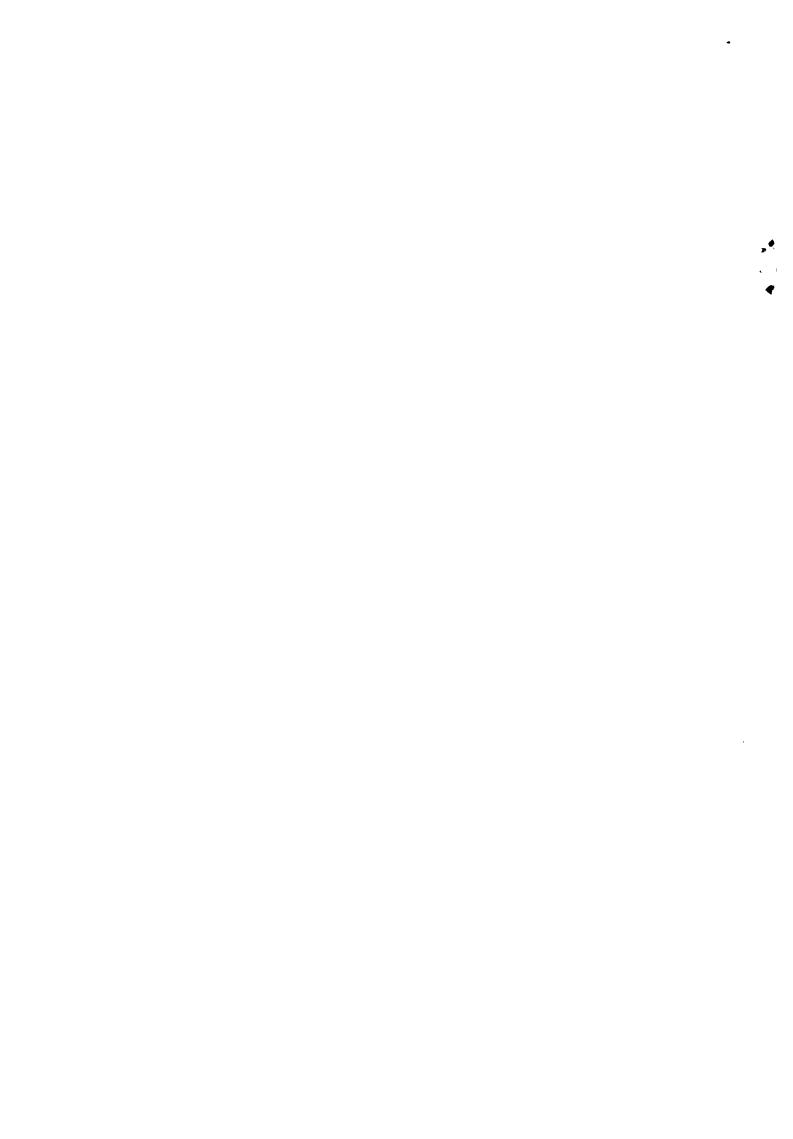


COMMUNICATION FROM THE COMMISSION

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RELATING TO THE ORGANISATIONAL STRUCTURE

OF THE FUSION PROGRAMME OF THE COMMUNITY



THE CONSULTATIVE COMMITTEE FOR FUSION

1. Justification

During the discussions of 15th December 1975, several delegations wished for a Commission proposal concerning the organisational structure of the fusion programme.

The unique characteristic of the Community's fusion programme, of bringing together and covering the whole of the activities of the laboratories of the member States, justifies completing the existing structures for planning and execution by a Consultative Committee for Fusion, playing the role of a very high level consultative body to the Commission.

This Committee also allows advice to be taken from all the countries, even those which until now have not participated in the programme.

2. Tasks

The CCF has the task of advising the Commission on problems concerning:

- a) the implementation and development of the programme, including the JET project
- b) changes of direction which might appear necessary
- c) the preparation of the future programme
- d) determination of the total volume of the fusion research activities in the European framework
- e) the increasing concentration and integration of the work carried out in member States
- f) the coordination at Community level of national planning.

3. Composition

- 3.1. The CCF shall be formed from responsible officials of Governments participating in the programme and of the Commission, at the level of responsibility for nuclear and energy research.
- 3.2. The CCF shall be composed of :
 - 1 representative of each member State
 - 1 representative of each of the other States who have signed a cooperation agreement with the Community covering the whole of the fusion programme
 - 1 representative of the Commission.
- 3.3. The members shall be nominated for a period of 5 years. The Commission shall invite the Governments of member States, and of countries later associated, to designate their representative to this Council
- 3.4. The conclusions of the work of the CCF shall be sent to the Commission generally in the form of opinions. At the express wish of any member, minority opinions will be reported.
- 3.5. The CCF nominates its chairman and vice-chairman who remain in office for a period of 2 years.
- 3.6. To accomplish these tasks, the CCF' shall as necessary consult the Committee of Directors in charge of the execution of the programme.
- 3.7. The secretary of the CCF shall be provided by the Commission.

4. Legal basis

The creation of this Committee is based upon the provisions of art. 135 of the Treaty establishing EAEC.