

NILU TR: 4/91

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# STEP PAN INTERCALIBRATION PREPARATIONS

*Project Planning Part 2*

T. Krogens



**NILU**

NORSK INSTITUTT FOR LUFTFORSKNING  
Norwegian Institute for Air Research  
POSTBOKS 64 — N-2001 LILLESTRØM — NORWAY

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## PREFACE

The scientific details of the STEP PAN INTERCALIBRATION project will be reported and published shortly after execution of the intercalibration work. For the benefit of the participants and other interested parties, the administrative details are reported before execution of the project.

The first part covers the development of the project plans up to and including the original STEP project proposal. All documents that are expected to have some general interest to the participants have been enclosed.

This second part covers the contract negotiation formalities, the CEC contract and the associated co-operation agreements between the participants.

A revised list of the participants with addresses, telephone and telefax numbers is included as enclosure 1.

The co-ordinator wishes to thank all those that have helped to create the project and to sort out the formalities. I sincerely hope we will also share success in the scientific work to be performed.

NILU, 13 May 1991

Terje Krognnes



## STEP PAN INTERCALIBRATION PREPARATIONS

The project proposal was forwarded to the CEC in December 1989 (see "STEP PAN INTERCALIBRATION PREPARATIONS, PROJECT PLANNING PART 1"). On 4 February 1990, the CEC acknowledged the receipt of the proposal (see Enclosure 2), and gave it the reference number STEP-PL900289.

In June 1990 NILU was informed that the project had been selected for possible support (letter from the CEC is included in Enclosure 3). In the same letter the CEC asked the group to complete the accompanying contract negotiation forms. NILU revised the work schedule and proposed how to divide the CEC contribution between the participants. This information was sent to the participants on 19 June 1990 (Enclosure 4).

In the same letter NILU also proposed a scheme for payment of the CEC contribution to the participants. This proposal was too restrictive, which was connected by some of the participants. NILU was not previously acquainted with the normal payment scheme used by the CEC, but naturally adopted this scheme. This and a few other questions raised by the participants were answered in a new information to the participants dated 5 July 1990 (Enclosure 5).

On 17 August 1990 new information arrived from the CEC. Detailed instructions for the form and content of the work programme (technical annex) were forwarded by telefax to the co-ordinator (Enclosure 6). The co-ordinator assembled the work programme in accordance with the instructions. This proposed work programme was on 3 September forwarded both to the participants and to the CEC.

The participants were instructed (Enclosure 7) to make any desired corrections or additions known to the co-ordinator so that a final version of the work programme could be forwarded to the CEC within one month. Enclosure 8 contains the work programme proposal and the technical annexes from the participants, as it was presented to the CEC on 3 September 1990 (a small portion of the material was delayed until 22 October 1990). Enclosure 9 is a copy of the completed contract negotiation forms.

Without making any formal commitment the CEC had indicated in its letter to NILU in June 1990 (Enclosure 3) that it would be desirable that NILU acted as overall scientific and administrative co-ordinator for the project. It was, however, not clear how this would eventually be possible, since Norway is not a member country in the EC, and the Norwegian association with the STEP programme will need some months to be formalized. In November 1990 the CEC decided to conclude the project contract within the frame of the 4th Environmental Programme (of which Norway is already a full member). The message dated 13 November, and a requested additional diagramme for the work programme, are given in Enclosure 10).

On 14 December 1990, NILU was informed that Sweden was not a member of the 4th Environmental Programme (Enclosure 11). In this message the contract number EV4V-CT90-0222 was introduced. The Swedish participant, ARD, agreed to be formally attached to the project as a subcontractor under NILU, as had been requested by the CEC. The arrangement was formalized by an agreement of co-operation between NILU and ARD (also included in Enclosure 11). This formality does not change any practical aspects of the participation of ARD in the project.

In Enclosures 7 and 8 it is seen that the co-ordinator intended to ask the participants for formal declarations of participation to be used as a basis for signing the contract in Brussels. In telephone conversations the CEC pointed out that this would convert the participants to subcontractors under

NILU, which was not the intention. Furthermore, there was no need for the suggested procedure, as the CEC would mail identical copies of the contract to all participants for signature. The participants were briefly informed of the progress in a telefax from NILU dated 20 December 1990 (Enclosure 12).

In January 1991 the CEC wrote the project contract and distributed two copies to each participant for signature. The accompanying letter and contract management information is given in Enclosure 13. The CEC organized the signature process so that no travelling was required. Each participant could sign his own copy (the CEC certified that the copies were identical) in his own country, and then mail it to the CEC.

By 20 February 1991 three of the signed contract copies had not been returned to the CEC. The co-ordinator informed all the participants of the status (Enclosure 14). Also the division of the indicated advance payment from the CEC was outlined. Any participant that would have difficulties to perform the 12 first months of research in the project with the funding thus available, was requested to notify the co-ordinator. No problem was reported from the participants in response to this request.

On 27 February 1991 the co-ordinator received from TNO a draft for a co-operation agreement between the participants. It appeared that the TNO administration required such an agreement between the participants in addition to the contract with the CEC. The co-ordinator had not previously been aware that TNO was not prepared to sign the contract with the CEC before the co-operation agreement was accepted by the participants.

The original agreement text (not included here) suggested by TNO on 27 February had been used in previous EC co-operative projects. NILU found the suggested text unsuitable since it copied many details that were already covered in the CEC contract, and since it seemed to be designed for a project management structure that was quite different from the structure of



the present project. This was communicated to TNO in a telefax dated 28 February 1991 (not included here).

TNO produced a revised draft text and distributed this directly to all the participants that are contractors in the CEC contract (Enclosure 15). The actual text shown in Enclosure 17 has been rewritten since it was distributed to the participants on 1 March 1991. The addresses of the participants have been added. Otherwise the rewritten text is word for word identical to the one distributed.

TNO briefly explained the need for this co-operation agreement in its letter dated 1 March 1991 (included in Enclosure 15). NILU on 13 March 1991 accepted the proposed text, and informed TNO and the other participants (Enclosure 16). One participant requested further explanation of the text. His questions dated 15 March 1991 and TNO's answers dated 27 March 1991 are given in Enclosure 17. After this all the participants signalled that they will sign the co-operation agreement, and only some practical details of the signature process remains.

On 29 April 1991 the co-ordinator received the signed contract from the CEC (Enclosure 18). The Operative Commencement Date was thereby fixed at 1 May 1991. The co-ordinator revised the work schedule to allow for holidays in the appropriate periods. Information about the commencement of the scientific work and a copy of the revised work schedule were sent to the participants on 3 May 1991 (Enclosure 19). The letter of 21 February 1991 (referenced in Enclosure 19) is found in Enclosure 4).

With this the STEP PAN intercalibration project has been started. In a letter to the CEC dated 8 May 1991 (Enclosure 20) the co-ordinator informed the CEC of the start of the project, and also inquired about the legal implications of sending copies of the scientific results and methods to the "shadow partners" of the project.

On 27 May 1991 the CEC confirmed the official commencement date and the dates of the first technical progress report and cost statements. The letter from the CEC and an accompanying information are given in Enclosure 21. The planned internal reports will be produced as scheduled, independently of the technical progress report required by the CEC.



**ENCLOSURE 1**

Revised address/telephone/telefax list  
for the project participants



## LIST OF PARTICIPANTS AND ASSOCIATED SCIENTISTS

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Norway	
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Cedex France	
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Italy	
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University of Patras	Fax. +30 61 99 19 96
Department of Chemistry	
26110 PATRAS	
Greece	
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Ministerio de Sanidad y Consumo	Fax. +34 1 63 80 613
Instituto de Salud Carlos III	
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+44 235 82 11 11  
(switchboard)  
Fax. +44 235 43 21 344

**ENCLOSURE 2**

Receipt of the project proposal was  
acknowledged by the CEC





COMMISSION  
OF THE  
EUROPEAN COMMUNITIES

BRUSSELS, 02.04.90

DIRECTORATE GENERAL  
FOR SCIENCE, RESEARCH  
AND DEVELOPMENT  
JOINT RESEARCH CENTRE

XII-E-1

NILU	
Mottat: 174-90 GP	Int nr E-1000
Føstnøst: AW	TK
Til info	

NORWEGIAN INSTITUTE FOR AIR RESEARCH  
BOX 64  
NO-2001 LILLESTROEM

For the att. of Mr. TERJE KROGNES

ACKNOWLEDGEMENT OF RECEIPT

Dear Sir,

I am pleased to acknowledge receipt of your proposal to the STEP programme entitled:

**PAN INTERCALIBRATION**

This proposal has been given the following reference number: **STEP-PL900289**

You are kindly requested always to mention this reference number in all future correspondence relating to this project. Please ensure that all your partners are also made aware of this reference number.

Your proposal will be examined by the services of the Commission, with the assistance of committees and experts. The result of this examination will be communicated to you in due course.

Yours faithfully,

*PH*  
P.O.H. OTT



**ENCLOSURE 3**

The co-ordinator was informed that the project  
had been selected for possible support.  
Contract negotiation forms were enclosed.





COMMISSION  
OF THE EUROPEAN  
COMMUNITIES

Directorate-General  
for Science, Research and Development  
Joint Research Centre

Environment and non-  
nuclear energy sources

Brussels,  
GA/lb  
XII-E-1

VI. 1989

Dr. T. KROGNES  
Norwegian Institute for  
Air Research  
Box 64  
N - 2001 LILLESTRO

NILU	
Motivat: EM	Uitvoer E-1000
Postmatr P. S. G.	TR
Til info	HO HOEKAS

Dear Dr. Krognes,

Subject : 5th Environmental Research Programme (STEP)  
Call for Proposals of 29 September 1989.

Ref: Proposal PL 900289.

I am pleased to inform you that, after having received the opinion of our Advisory Committee, the Commission of the European Communities has selected for possible support your proposal entitled:

**PAN Intercalibration**

to be performed by the associated institutions hereafter mentioned :

- NILU, Lillestroem, Norway
- Swedish Environment Protection Agency, Nyköping, Sweden
- University Paris XII, France
- University of Patras, Greece
- TNO Delft, Netherlands
- Meteorologie Consult, Glashuetten, Germany
- CNR Rome, Italy
- Centro Nacional de Sanidad, Madrid, Spain

On the basis of the figures and information indicated in your proposal and in view of budget limitations, the financial participation of the Commission in the above research would be up to a maximum of 300.000 ECU for a period of 24 months to be split among institutions located in Community countries and 100.000 ECU for those located in Non-Member States. This last contribution will be made available once the appropriate agreement associating Norway and Sweden to the STEP Programme will be signed.

It would be desirable that, in addition to performing the research, your parent organisation would act as overall scientific and administrative coordinator of the joint project. This would imply the coordination of the related work to be performed and the consolidation of all scientific reports as well as the transfer of the payments made by the Commission to the other laboratories participating in the cooperative project. It is envisaged that your parent organisation will conclude appropriate arrangements with these laboratories.

Rue de la Loi 200 • B-1049 Brussels - Belgium

To enable the Commission to examine the possibility of participating financially in this research would you please complete and return the contract negotiation forms before 30 June 1990, accompanied with a technical description of the scientific work to be carried out by each participant. This description, based on your proposal should be written in a way that it could be used as technical annex for the contract. A timeschedule should also be included.

Subject to a satisfactory outcome of the negotiations with our Contract service and to the completion of all Commission internal procedures, a formal cost-sharing contract will be forwarded to your organisation for approval and signature as soon as possible. In such cases, the starting date of the contract will normally be the first day of the month subsequent to the date on which the contract is signed by both parties.

This letter should not be considered under any circumstances as a formal commitment by the Commission. a

For further information concerning scientific and technical issues please contact G. Angeletti (tel. 02/235 8432) - Telefax n. 02/236 3024 and Mr. M. Brinkmann (tel. 02/235 98 16) of the Contract Service (XII/B/2) for financial and administrative issues.

Yours sincerely,



Ph. Bourdeau  
Director

cc: Associated Institutions  
Contract Service

Encs. - Contract negotiation forms  
- Model contracts

**ENCLOSURE 4**

Information from the co-ordinator to the participants  
of the contract negotiation forms,  
and work schedule revised 19 June 1990







Sent to:

Dr. Rudolph, KFA Jülich, FRG  
Dr. Rosalia Fernández Patier, Ministerio de Sanidad y Consumo, Spain  
Dr. Hollander, TNO, Delft, Holland  
Dr. Cicciolo, Conciglio Nazionale, Italy  
Dr. Penkett, Univ. of East Anglia, England  
Dr. Toupençe, Univ. of Paris, France  
Dr. Serrini, JRC, Ispra, Italy  
Dr. Glavas, Univ. of Patras, Greece  
Dr. R. Schmitt, Meteorologieconsult, FRG  
Dr. P. Oyola, ARD, Sweden  
Dr. Ø. Hov, UiB, Norway

Your ref.:

Our ref.:  
TK/MAA/E-1000

Lillestrøm, 19 June 1990

Dear colleagues

#### STEP PAN INTERCALIBRATION

All the participants have now received directly from the Commission information that our project has been selected for possible support. All participants have also received a new set of forms. To enter into the contract negotiations, each participant must complete the forms, using the information supplied in this letter. The completed forms and an accompanying technical description of the scientific work to be carried out, should be sent directly to the Commission from each participant. Copies of all documents should be sent to NILU. The date given by the Commission, 30 June, is not an absolute deadline, but we should not delay the process more than necessary.

The Commission has indicated that the project should be completed in two years, and that the financial contribution from the Commission will be 400 000 ECU. This is approximately 40% of the sum originally applied for. NILU proposes the following arrangement between the participants:

Enclosures: 1

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 3 30 83 27

Organization	Country	Contribution applied for ECU	Actual contribution ECU	
NILU	Norway	170 000	60 000	35%
U.P. XII	France	100 000	46 000	46%
U. Patras	Greece	125 622	48 000	38%
TNO	The Netherlands	105 000	46 000	44%
Meteoconsult	F.R.G.	232 000	70 000	30%
ARD	Sweden	76 500	40 000	52%
CNR	Italy	101 000	46 000	46%
CNSA	Spain	<u>107 692</u>	<u>44 000</u>	41%
		1 017 814	400 000	

Each participant should compute and indicate his realistic expenses in the forms to the Commission, but not ask for a larger contribution than that indicated above.

The difference between the computed expenses and the EC contribution should be used as documentation when applying for national funding for the project.

If any participant should find the indicated contribution unacceptable and chooses to withdraw from the project, please inform NILU immediately. This participant's share of the EC contribution will then be made available to the other participants.

NILU proposes that the following organizations act as editors for the planned publications:

- ARD: "A comparative study of PAN calibration methods". This will be an extract of the internal reports, and will be the main document of the intercalibration project. It should both describe the work and sum up the conclusions.
- CNR: "Regional cycles of PAN in the Mediterranean area". Includes measurement data from Patras, Ispra, Rome and Madrid.
- TNO: "PAN contribution to photooxidant budget over the North Sea region". Includes data from Delft, Glasshütten, Oslo, England (Penkett) and Stockholm.
- U.P. XII: "PAN measurements near large cities and in "background areas" in central Europe". Includes data from Paris, Delft and Glasshütten.

The participants that have been assigned as publication editors will not receive economic contribution in addition to that indicated above. The contributions given to these participants, computed in % of the sum they applied for, is however above the average of 40%. If any participant finds this arrangement undesirable, please inform NILU immediately.

The proposed field intercalibration in Rome was the most controversial part of the project. It was by many participants considered too complicated and too expensive. Since the Commission has asked that the project be cut down to two years, NILU proposes to leave the field intercalibration out of the project. The Commission has indicated that such adjustments of the project content may be done without causing further reductions in the EC contribution.

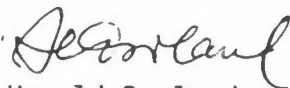
A revised project plan is enclosed. It is based on project start in early January 1991. The time-table for the first half year is tight, and summer holiday may be pushed to late in July. This problem will be alleviated if we manage to complete the contract negotiations and our own preparations in time to start the project in early December 1990. In the latter case the PREP. III phase may be prolonged by one week as indicated in the project plan, and the rest of the plan may be adjusted accordingly.

If some major delay should occur due to technical problems, holidays, etc., NILU will issue a revised project plan and send this to the Commission and the participants. The payments from the Commission should then be expected to be delayed accordingly.

At the end of phases PREP. I, PREP. II, PREP. III, CAL. I, CAL. II, CAL. III and EV. III, all participants will issue a written document. NILU will administer the payment to the participants of the EC contribution. NILU proposes to pay to each participant 1/7 of the participant's share upon receipt of a satisfactory document in each phase.

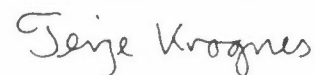
T. Krognnes will be available at NILU until Friday 22 June 13:00 hours. Urgent matters should be discussed by telephone before this time. All comments and questions after this time must be forwarded by telefax. From 24 June to 30 June Krognnes will be travelling abroad. On 4 and 5 July he will answer all telefaxes received. Also on 11-13 July Krognnes will be available at NILU. All forms and technical descriptions should be completed and sent to the Commission (with copies to NILU) by 13 July.

Yours sincerely



Harald Dovland  
Director

---



Terje Krognnes  
Research scientist

REVISED SUMMARY OF PROJECT PHASES (JUNE 1990)

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
1- 4	PREP. I	Participants consolidate existing "local" methods and report these in detail to co-ordinator. Publication reprints and detailed descriptions of methods and difficulties forwarded to NILU by express mail before end of week 4.
6- 8	"	NILU compiles internal report and sends to participants at end of week 8.
5-18	PREP. II	Participants prepare additional methods to be used for intercomparisons. Participants report results and send by express mail to NILU before end of week 18.
9-19	"	NILU prepares standards and methods for trial distribution.
20-21	"	NILU compiles internal report and sends to participants at the end of week 21.
22	PREP. III	Trial standard distribution.
23-25	"	Participants calibrate distributed standards and local standards with at least two methods. Participants calibrate GC with different standards and different application methods.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
26-27 (26-28)?	PREP. III	Participants report results. Reports are sent by express mail to NILU at the end of week 27 (28)?
25-27		Summer holiday at NILU.
28-31		Summer holiday for participants.
29-31	"	NILU compiles internal report. Sends report to participants at end of week 31.
32-33	CAL. I	NILU prepares standards for distribution.
34	"	First intercalibration standard distribution.
35-37	"	Calibrations (as in weeks 23-25).
38-40	"	Participants report results to NILU. Reports are sent by express mail to NILU at the end of week 40.
42-44	"	NILU compiles internal report and sends to participants at the end of week 44.
45-46	CAL. II	NILU prepares standards.
47	"	Second intercalibration standard distribution.
48-50	"	Calibrations.
51-52		Christmas holiday.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
53-55	CAL. II	Participants report results to NILU. Reports are sent by express mail to NILU at the end of week 55.
57-59	"	NILU compiles internal report and sends to participants at the end of week 59.
60-61	CAL. III	NILU prepares standards.
62	"	Third intercalibration standard distribution.
63-65	"	Calibrations.
66-67	"	Approximate position of Easter holiday.
68-70	"	Participants report results to NILU. Reports are sent by express mail to NILU at the end of week 70.
72-74	"	NILU compiles internal report and sends to participants at the end of week 74.
71-76	EV. I	Participants calibrate all ambient PAN data from weeks 1-70, tabulate them and perform quality control. Each participant sends his data to all other participants by express mail at the end of week 76.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
77-78	EV. II	Editors begin work on publications.
79-82		Summer holiday.
83-86	"	Editors complete draft versions of publications and distribute to participants at the end of week 86.
88-92	EV. III	Participants evaluate draft reports and send their suggestions to the editors by express mail at the end of week 92.
-98	EV. IV	Editors submit publications to appropriate journals.





**ENCLOSURE 5**

Additional information to the participants,  
5 July 1990





Sent to:

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 Dr. R. Fernández Patier, Minist. de Sanid. Y Cons. Spain, Fax: 095-34-1-6380613  
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 Dr. P. Oyola, Nat. Environ. Protect. Board, Sweden, Fax: 095-46-155 63110  
 Dr. J.C.Th. Hollander, TNO, The Netherlands, Fax: 095-31-15-616812  
 Dr. S.A. Penkett, Univ. of East Anglia, UK, Fax: 095-44-603-507719  
 Dr. J. Rudolph, FKA Jülich, FRG, Fax: 095-49-2461-615346  
 Dr. Ø. Hov, Univ. of Bergen, Norway, Fax: 05-960566

Your ref.:

Our ref.:  
 TK/MAA/E-1000

Lillestrøm, 5 July 1990

Dear colleagues,

#### STEP PAN INTERCALIBRATION

To this time, comments to NILUs proposal dated 19 June 1990 have arrived from Dr. Oyola, Dr. Schmitt, Dr. Toupance, Dr. Hollander, Dr. Ciccioli, Dr. Glavas. The reactions are mostly positive, and most questions concern minor administrative details.

Dr. Glavas has pointed out that some groups may need a larger part of the financial contribution from the EC at an early time in order to cover investments that are essential to the project. If possible, each participant should try to cover such needs by the national or internal contributions to the project, as we have not yet been informed of the payment schedule to be used by the Committee. If during the contract negotiations the Commission does not require such a strict connection between project progress and payments, it should be possible to adapt to the problem mentioned above.

No participant has withdrawn from the project. All participants should continue using their original participant number.

Several participants have pointed out that we are instructed by the Commission to send the new forms via the co-ordinator. Therefore, please send the forms by express mail to NILU, and not to Brussels. Please, also note that not all pages need to be used by each participant. Page 2 will be used only by the co-ordinator.

Annex I is only required if the participant's labour or overhead rates are not based upon those used for cost-shared RTD-work carried out with a government of an EC state.

Annexes II and III will not be needed from any participant. Further explanations are given in the cover of the forms and on the back side of some of the forms.

Enclosures: 0

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

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Bank: 5102.05.19030  
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Please, send the completed forms by express mail to NILU not later than 13 July 1990. If there are further questions, I will be available at NILU 12 and 13 July.

Best regards

for Terje Krognæs  
Research scientist

May Aamodt

**ENCLOSURE 6**

Information from the CEC concerning form and  
content of the work programme





COMMISSION  
OF THE EUROPEAN  
COMMUNITIES

DIRECTORATE-GENERAL FOR SCIENCE,  
RESEARCH AND DEVELOPMENT  
JOINT RESEARCH CENTRE

Brussels, 17 August 1990.  
DG XII/E-1 - GA/cs

Note to all contractors being in negotiation

Subject: Step Programme  
Preparation of Work Programme Description  
(Technical Annex) for the contract

In July the Directorate-General XII adopted a common format for the description of the scientific/technical work programme (Technical Annex) which will form a part of the contract.

Please, find enclosed for your consideration the instructions to be followed. Note, that our Contract Division has been instructed to refuse any contract proposal which does not correspond to these instructions.

I am sorry that I can provide to you these instructions at such a late stage only. In addition I apologize that I can distribute these instructions at present in English only. This is for saving time in informing you at the earliest possible moment.

Yours sincerely,

G. ANGELETTI

N.B.: If you feel to have met all the requirements asked in these instructions, you are of course not obliged to prepare a new Technical Annex.

Encl.



July 1990

## WORK PROGRAMME FOR INCLUSION IN RTD CONTRACTS

## A. Preparation of Work Programme

The work programme to be included in the RTD contract forms part of a legal document and, as such, the same actions can be taken for non compliance or fulfilment of the content of the work programme as for any default of the other contractual conditions. Its role is not that of an information document and material which may be useful for understanding how the project is to be managed, but which is not essential for the tasks to be performed, should be excluded from the document.

It should, therefore, be written in a clear, precise and concise manner, and give the necessary flexibility required for both the CEC and the participants to adapt the work arrangements to achieve the goals and objectives foreseen without the need to modify formally the annex. Such flexibility is an essential tool in the management of the project, this being the prime responsibility of the coordinator, working closely with the other participants.

The work programme must be written in the third person and be based upon the details provided in the proposal. However, it should exclude all background material to support the selection of the proposal, but not essential for the implementation of the selected project (for example, previous work undertaken, references to publications, state of the art, future intentions of the participants should be excluded). References to "the proposal" should be omitted as the work programme should clearly specify the tasks to be undertaken. The contents of the proposal form for optical reading should assist in the preparation of the work programme for the contract.

To avoid possible conflicts with other parts of the RTD contract:

- no dates or costs should be included in the work programme,
- references should be to accomplishing tasks within "x" months from the commencement of the project. Calendar dates should only be used when it is of paramount importance that work is accomplished by that date, even if the contractors have less time than envisaged to achieve the result.

In general, the work programme should not be longer than  $\pm$  (10) pages and should be prepared in the following standard format (preferably in EN or FR).

## B. Content of the Work Programme

### 1. TITLE

### 2. OBJECTIVES

Goals and objectives of the project to be presented in, as much as possible, measurable (quantitative) terms (expressions such as "several experiments" and "the performance will be improved" should not be used).

Project methodology - describe the general technical approach to achieve goals. Describe the general means (e.g. experiments, tools, software) to evaluate and validate results. Use flow charts where appropriate to synthesise information.

Milestones (points at which major achievements should be reached) must be included with the related project review dates. A mid-term assessment against specified objectives should normally be included for projects of more than three years.

### 3. ROLE OF PARTICIPANTS

Give an outline of the involvement, and role and responsibilities, of the main participants (contractors, associated contractors and major subcontractors).

### 4. DELIVERABLES AND WORK PLANNING/SCHEDULE

- Define the deliverables.
- Outline interdependence between tasks.
- Use a PERT (Programme Evaluation and Review Technique) diagram or bar chart wherever possible for the work plan.

### 5. COMPLEMENTARY PROJECTS

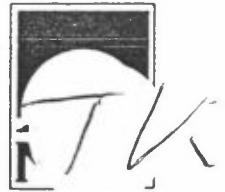
Specify projects which are complementary (title, names of participants, and contract or proposal number should be indicated, as well as interdependence with the project).



**ENCLOSURE 7**

Letter from NILU to the participants  
of 3 September 1990





Telefax sent to all STEP PAN-participants:

Professor G. Toupance, France  
Dr. P. Ciccioli, Italy  
Dr. G. Serrini, Italy  
Dr. S. Glavas, Greece  
Dr. Rosalia Fernández Patier, Spain  
Dr. R. Schmitt, FRG  
Dr. P. Oyola, Sweden  
Dr. J.C.Th. Hollander, the Netherlands  
Dr. S.A. Penkett, UK  
Dr. J. Rudolph, FRG

+

Øystein Hov, Universitetet i Bergen  
Simen Ensby, Norges Teknisk-Naturvitenskapelige Forskningsråd

Your ref.:

Our ref.:  
TK/MAA/E-1000

Lillestrøm, 3 September 1990

Dear colleagues,

Please find enclosed the proposal work programme (sent to the CEC with the contract negotiation forms), a copy of the co-ordinator's letter to the CEC dated 3 September 1990, and a copy of the "note to contractors being in negotiation" from the CEC (dated 17 August 1990).

The co-ordinator has compiled a work programme in accordance with the directives from the CEC. Furthermore, he has attempted to extract from the participants' technical annexes those details that are essential to the project contract. The extracted details and some additions proposed by the co-ordinator, are included in chapter 3 of the work programme. The text is intended to be sufficiently detailed for a contract, and yet flexible enough to allow a normal project evolution without re-negotiation of the contract.

Please inform the co-ordinator of any corrections or additions that may be needed to make the work programme correct, complete and suitable for inclusion in the contract with the CEC. The co-ordinator will need these comments before the end of September in order to forward a final work programme to the CEC in the beginning of November. At this time, the co-ordinator will request a formal confirmation letter from each participant, as indicated in the enclosed letter to the CEC.

Yours sincerely

Terje Krognæs  
Scientist

Enclosures.



## ENCLOSURE 8

Contract negotiation material  
forwarded to the commission, contains  
Work Programme revised 2 September 1990

Letters, work programme and technical annexes  
are given in this appendix. The contract  
negotiation forms are given in the following appendix







Commission of the European Communities  
Att.: Dr. G. Angeletti  
Directorate General for Science,  
Research and Development  
Directorate General XII  
Rue Montoyer 75  
B-1049 Brussels  
BELGIA

Your ref.:

Our ref.:  
TK/MAA/E-1000

Lillestrøm, 3 September 1990

STEP-PL900289, PAN INTERCALIBRATION

Please find enclosed a proposal for the work programme, the technical annexes from the participants, and the contract negotiation forms from the participants.

We apologize for the delay. NILU is still awaiting the forms from the Swedish participant, who is presently not available. The Swedish forms and technical annexes from the ARD and Meteorologieconsult, will be forwarded as soon as possible.

Based on suggestions from the Contract Division, and on corrections and additions from the participants, NILU will forward a final version of the work programme in the beginning of October 1990. At the same time NILU will request formal letters from the participants, stating that they will perform their part of the project in accordance with the work programme, in accordance with all impositions from the CEC, and for the funding indicated in the contract negotiation forms. Based on these letters from each participant, and on the final work programme, NILU expects to be able to sign the contract with the CEC in the beginning of November 1990.

Due to a misunderstanding all contract negotiation forms from NILU were written with a pitch of 12 characters per inch. If a new set of forms is forwarded to NILU, we will immediately rewrite the forms in 10 characters per inch.

Yours sincerely

Harald Dovland  
Director

Terje Krognnes  
Scientist

Enclosures.

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

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Bank: 5102.05.19030  
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Commission of the European Communities  
Att.: Dr. Angeletti  
Directorate General for Science,  
Research and Development  
Directorate XII-B-3  
Rue Montoyer 75

B-1040 BRUSSELS  
BELGIUM

Your ref.:

Our ref.:  
TK/MAA/O-90081

Lillestrøm, 22 October 1990

STEP PL 900289

Please find enclosed the technical annexes from participants number 05 and 06, and the revised work programme. NILU now intends to ask the participants for formal statements, based on this work programme, to form the basis of the contract between NILU as co-ordinator and the Commission.

NILU has been informed by the Royal Norwegian Council of Scientific & Industrial Research that the formal decision of the Norwegian participation in STEP has been made. Until the agreement has been signed, Royal Norwegian Council of Scientific & Industrial Research will, if necessary, advance the EC contribution to the project. Norwegian representatives will discuss these details in Brussels on Tuesday 23 October.

Yours sincerely

Paal Berg  
Head of Administration

---

*Terje Krognæs*  
Terje Krognæs  
Research scientist

Enclosures.

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**WORK PROGRAMME  
STEP-PL900289**

1) TITLE: PAN INTERCALIBRATION

2) OBJECTIVES:

2.1 GOALS:

- Enable the participants to calibrate a PAN (Peroxy Acetyl Nitrate) standard with errors within  $\pm 10\%$  of the true concentration.
- Enable the participants to calibrate a PAN GC (Gas Chromatograph) with errors within  $\pm 10\%$  of the true sensitivity (given a "true" standard concentration).
- Create a European platform for comparison of PAN data.
- Provide a 1 year set of well-calibrated ambient PAN data from a European network of measurement stations.
- Publish results in reviewed journals.

Due to the complexity of the task and the technical difficulties involved in handling PAN standards, the actual percent value of error limits obtained is not essential. The most important point is the ability to state that all significant error sources have been identified and controlled.

2.2 PROJECT METHODOLOGY

Intercalibration experiments will take place in the local laboratories of each participant. Each participant will perform PAN standard calibrations

and PAN GC calibrations with the methods normally used in the respective laboratories, and with additional methods needed for comparison purposes. All experiments will include "local" PAN standards and PAN standards distributed from the co-ordinator. Samples of the distributed PAN standards will be returned to the co-ordinator for recalibration.

A work schedule is enclosed in chapter 4.3. In phase PREP.I all methods presently in use in the participating laboratories will be described and evaluated, with an emphasis on technical difficulties and error sources. The participants will meet in the co-ordinator's premises in the end of this phase to exchange information and agree on details in the project strategy.

The participants will in phase PREP.II acquire additional methods needed for intercomparison of results. The documentation exchanged during PREP.I will be essential for this phase.

Phase PREP.III is a trial distribution of PAN standards. Technical difficulties may be expected in all participating laboratories. The participants will adjust their methods and resolve problems as well as possible before the start of phase CAL.I.

Three identical experiments comprising PAN standard distribution and intercalibration experiments, are named CAL.I to CAL.III. In phase CAL.I some technical problems must still be expected to remain. The last two intercalibration phases are the minimum required to demonstrate that the results are reproducible. This may be achieved even if one or two participants should have permanent technical problems.

### 2.3 MILESTONES

The six project phases PREP.I, PREP.II, PREP.III, CAL.I, CAL.II and CAL.III will be concluded with internal reports to be distributed to the participants from the co-ordinator. Each participant will contribute to each of these internal reports.

At the conclusion of phase EV.I all participants report their ambient PAN measurement data collected throughout the project.

Phase EV.II ends with the distribution of draft versions of publications from the appointed editors. Phase EV.III ends with the submission of suggestions from the other participants. Phase EV.IV ends with the submission of publications to appropriate journals. If a journal should request a revision before publication, the appointed editor will inform the other participants and receive their comments before finalizing the revision.

### 3) ROLE OF PARTICIPANTS

All participants will perform the work as outlined in the work schedule (chapter 4.3). The specific methods and special tasks of each participant are listed below.

#### 3.1 NILU, THE CO-ORDINATOR

As co-ordinator NILU will handle administrative and economic details of the project. NILU will supply pre-calibrated PAN standards and distribute these to the other participants. NILU will recalibrate samples of these standards returned from the participants after use. NILU will compile and distribute internal reports concluding each project phase. The method for synthesis of PAN has presently not been selected. NILU will purify all PAN solutions by HPLC (High Performance Liquid Chromatography) and calibrate them by ion chromatographic analysis of  $\text{Ac}^-$  after hydrolysis. This method will be used as reference method for PAN standard calibration through the project.

NILU will calibrate a PAN GC with PAN standards injected into tedlar bags with a known volume of clean, dry air. This will initially be the reference method for GC calibration.

NILU will construct a PAN calibrator based on a permeation tube containing a PAN solution. Such a dynamic device avoids the largest error sources in a static method (like a fixed volume PAN dilution in a tedlar bag). If the results are satisfactory, the participants may choose to select this calibrator as reference GC calibration method.

NILU will construct a new PAN GC and install it at NILU in Lillestrøm, Norway. This instrument will be used for the GC calibration experiments, and it will supply ambient PAN data that will be reported to the project.

The co-ordinator will visit all participants once during each of the two project years to exchange information, and to see the practical realisation of the experiments. If a sufficiently stable PAN analyzer is available in 1992, the co-ordinator will bring such an instrument round to the participants for field intercomparison tests.

### 3.2 UNIVERSITY OF PARIS XII

Will synthesise PAN by two different methods. Gas phase UV (Ultra Violet) irradiation of  $\text{NO}_2$ /acetaldehyde, and liquid phase nitration of peroxy-acetic acid. Will test the eventual need for purification by HPLC of the produced liquid PAN solutions. Will experiment with dynamic and static dilutions of PAN in gas phase. Will analyse PAN in gas phase by IR (InfraRed) absorption. Will analyse PAN standards with spectrophotometry of  $\text{NO}_2^-$  (Saltzman) and with ion chromatography of nitrite or acetate after alkaline hydrolysis. Will compare direct injection of PAN solution into GC with injection of PAN solution into tedlar bag. Will compare calibrations with dry and moist matrix air.

Dr. G. Toupance of the University of Paris XII will be the editor of the publication "PAN measurements near large cities and in background areas in central Europe".

The PAN analyzer in Creteil will be used for the above GC calibration tests, and will supply ambient PAN data for the project period.

### 3.3 UNIVERSITY OF PATRAS

Will analyse PAN in gaseous mixtures by conversion to NO (Nitrogen Oxide) on a molybdenum converter followed by a chemiluminescence NO instrument. This method will be compared to alkaline hydrolysis of gaseous PAN followed by ion chromatographic analysis of nitrite/nitrate and of acetate ions. Will also calibrate the distributed liquid PAN solutions by ion chromatography.

A PAN GC will be acquired for the project and installed on the Patras university grounds. This instrument will be used for GC calibration experiments, and it will supply ambient PAN data during the project period.

### 3.4 TNO

Will synthesize PAN in liquid solution. Will calibrate "local" and distributed PAN solutions with FTIR and with ion chromatography (both nitrate and acetate analysis). Will calibrate GC with both standards, using static dilutions in tedlar bags. TNO is the only participant that routinely uses moist nitrogen carrier gas for the PAN GC.

TNO will set up a fully automated PAN analyzer. The instrument will be used for the GC calibration experiments, and it will provide ambient PAN data during the project period.

TNO will take editor responsibility for the publication "PAN contribution to photo-oxidant budget over the North Sea region".

### 3.5 METEOROLOGIECONSULT

A PAN analyzer with detection limit 5 ppt is presently operated in Jülich. A PAN analyzer with cryo-trapping and 1 ppt detection limit is presently operated in Tenerife. Data from these two instruments will be made available for the project. To facilitate the intercalibration experiments two new instruments with similar characteristics will be constructed. These instruments furthermore will be mobile. Various GC calibration methods will be compared on all four instruments. These methods include liquid injection of dilute PAN solutions and a permeation system with a photochemical reactor that dynamically produces PAN with a controlled concentration.

PAN standards will be calibrated by ion chromatographic determination of acetate, nitrite and nitrate after hydrolysis. They will also be calibrated by a colorimetric technique (modified Griess-Sabzmann), and by



chemoluminescent techniques (analysis of  $\text{NO}_2$  after thermal decomposition of PAN, and of  $\text{NO}_y$  by catalytic conversion to NO). Both local and distributed PAN standards will be used.

### 3.6 ARD

A PAN analyzer stationed at Aspvråten (at the coast south of Stockholm) will be dedicated to the project. This instrument will supply ambient PAN data to the project.

ARD will calibrate PAN standards with ion chromatographic analysis of acetate and nitrate after hydrolysis, and by a chemiluminescent technique after conversion to NO. ARD will calibrate the PAN GC by injection of standard into a tedlar bag, by a PAN diffusion calibrator (in co-operation with NILU), and by direct comparison to the NO/chemiluminescent technique.

Dr. P. Oyola of ARD will take editor responsibility for the publication "A comparative study of PAN calibration methods", which will sum up the final conclusions of the project.

### 3.7 CNR

CNR will construct a PAN generator that synthesises PAN dynamically by UV irradiation of  $\text{NO}_2$ /acetaldehyde (same principle as utilized by University of Paris XII). CNR will also use the calibrator to produce PPN by substituting propionaldehyde for acetaldehyde. CNR will experiment with methods for removing excess  $\text{NO}_2$  and  $\text{O}_3$  without destroying PAN.

The PAN output from the calibrator, and the PAN concentration of the distributed samples, will be measured by alkaline hydrolysis and ion chromatography. Infrared Spectroscopy will be used for qualitative determinations of PAN, and for control of sample purity.

A PAN GC will be calibrated with the different PAN standards. The GC will provide ambient PAN data during the project period.

Dr. Ciccioli of the CNR will be editor of the publication "Regional cycles of PAN in the Mediterranean area".

### 3.8 CNSA

The CNSA will synthesize PAN in liquid solution (method of T. Nielsen, 1982), and purify the standard on HPLC. The CNSA will calibrate both "local" and distributed PAN standards by alkaline hydrolysis followed by ion chromatographic analysis of nitrite/nitrate. An automated PAN analyzer (Carlo Erba) will be operated at the Majadahonda premises west of Madrid. The instrument will be calibrated with both "local" and distributed PAN standards.

Ambient PAN data will be collected throughout the project period and reported.

## 4) DELIVERABLES AND WORK SCHEDULE

### 4.1 DELIVERABLES:

The internal reports concluding the first six project phases will be submitted to the commission. During phases EV.I to EV.IV, four publications will be prepared. These will give an overview of the results and complete technical information of the most successful methods tested during the project. The planned publications are:

"A comparative study of PAN calibration methods". This will be an extract of the internal reports, and will be the main document of the intercalibration project. It should both describe the work and sum up the conclusions. Editor Dr. P. Oyola, ARD.

"Regional cycles of PAN in the Mediterranean area". Includes measurement data from Patras, Ispra, Rome and Madrid + background data from Tenerife. Editor Dr. Ciccioli, CNR.

"PAN contribution to photooxidant budget over the North Sea region". Includes data from Delft, Jülich, Oslo, England (Penkett) and Stockholm. Editor Dr. Hollander, TNO.

"PAN measurements near large cities and in "background areas" in central Europe". Includes data from Paris, Delft and Jülich. Editor Dr. Toupance, U.P.XII.

#### 4.2 INTERDEPENDENCE BETWEEN TASKS:

The participants will work independently, and will not be affected by minor technical problems outside their own laboratories. The participants will report both positive and negative results in accordance with the schedule below.

If major technical problems should be encountered with the reference methods, normal project execution will be halted. All participants will in this case co-operate to resolve the problem before resuming project operation with a revised time schedule.

#### 4.3 WORK SCHEDULE:

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
1-4	PREP.I	Participants consolidate existing "local" methods and report these in detail to coordinator. Publication reprints and detailed descriptions of methods and difficulties forwarded to NILU by express mail before end of week 4.
6-8	PREP.I	NILU compiles internal report.
9	"	All participants travel to NILU for a 3 day seminar and strategy meeting. Participants prepare short presentations of their methods and planned contribution to the project. ;
5-18	PREP.II	Participants prepare additional methods to be used for intercomparisons. Participants report results and send by express mail to NILU before end of week 18.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
9-19	PREP.II	NILU prepares standards and methods for trial distribution.
20-21	"	NILU compiles internal report and sends to participants at the end of week 21.
22	PREP.III	Trial standard distribution.
23-25	"	Participants calibrate distributed standards and local standards with at least two methods. Participants calibrate GC with different standards and different application methods.
26-27	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 27.
25-27		Summer holiday at NILU.
28-31	"	Summer holiday for participants.
29-31	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 31.
32-33	CAL.I	NILU prepares standards for distribution.
34	"	First intercalibration standard distribution.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
35-37	CAL.I	Calibrations (as in weeks 23-25).
38-40	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 40.
42-44	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 44.
45-46	CAL.II	NILU prepares standards.
47	"	Second intercalibration standard distribution.
48-50	"	Calibrations.
51-52		Christmas holiday.
53-55	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 55.
57-59	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 59.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
60-61	CAL.III	NILU prepares standards.
62	"	Third intercalibration standard distribution.
63-65	"	Calibrations.
66-67	CAL.II	Approximate position of Easter holiday. Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 70.
68-70		
72-74	CAL.III	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 74.
71-76	EV.I	Participants calibrate all ambient PAN data from weeks 1-70, tabulate them and perform quality control. Each participant sends his data to all other participants by express mail at the end of week 76.
77-78	EV.II	Editors begin work on publications.
79-82		Summer holiday.
83-86	"	Editors complete draft versions of publications and distribute to participants at the end of week 86.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
88-92	EV.III	Participants evaluate draft reports and send their suggestions to the editors by express mail at the end of week 92.
-98	EV.IV	Editors submit publications to appropriate journals.

## Participant No 2

UNIVERSITY PARIS XII  
Laboratoire de Physico-Chimie de l'Environnement (LPCE)  
Avenue Général de Gaulle, 94000, CRETEIL, France  
G. TOUPANCE, PI.

## Technical annex.

Laboratoire de Physico-Chimie de l'Environnement (LPCE), is involved in measuring PAN in the atmosphere since 1983. The analytical technique is gas chromatography with electron capture detection (ECD). The device is fully automated and controlled by computer.

After years of measurements in Créteil (SE suburb of Paris) and Col du Donon (Vosges mountains), and a lot of work paid to generation of standards and calibration procedures, some uncertainties could still remain as well on decomposition of PAN in the column as on the absolute calibration of the system.

LPCE will participate to the program through 4 aspects :

- Intercomparison of calibration techniques;
- Field campaign measurements;
- Laboratory study of possible analytical artifacts;
- Synthesis reports on field measurements in the northern Europe.

1 - INTERCOMPARISON OF CALIBRATION TECHNIQUES :

1.1 - Techniques presently used at LPCE:

Several techniques are used for calibration :

- in lab : injection of a sample calibrated by IR absorption and subsequently diluted, control by spectrophotometry of  $\text{NO}_2^-$  (Saltzman technique).
- on field : calibration of the automated field device by comparison with a second gas chromatograph transported to the field station under continuous operation and calibrated in lab just when leaving and just when return; preparation of PAN through UV irradiation of a  $\text{NO}_2$ /acetaldehyde mixture under well defined conditions (this technique, derived from Meyrhan, has been extensively studied in lab for accuracy, repeatability and dependence to experimental parameters) with control in lab just when leaving and just when return.



Pure PAN is prepared by nitration of peroxyacetic acid, dissolved in dodecane and kept in congelator at  $-25^{\circ}\text{C}$ . For IR absolute calibration, a flask of a frozen solution of PAN in dodecane is gently warmed to  $10-15^{\circ}\text{C}$  and gaseous PAN is transferred into an evacuated IR cell (20-100 ppm). The IR spectrum is taken after 10 mn in order to be sure that the rapid initial second order discrepancy of PAN is over. PAN is then diluted to the ppb range (1/6000) by transferring an aliquot of the content of the IR cell into an evacuated glass vessel. This operation is repeated 3 times in order to avoid purge and loss problems. A second spectrum of the IR cell is then taken and the concentration of PAN at the moment of the last dilution ( $t_0$ ) is calculated by interpolation. Series of different volumes of samples of this diluted mixture are injected on the GC and, for each sampling volume, the response of the system is plotted as a function of time. The calibration curve of the system is determined by extrapolating to the moment  $t_0$  of the dilution, the response of the system corresponding to each sampling volume. Precautions are taken during all the procedure to avoid losses of PAN on walls; in particular, all vessels, including syringes, are saturated with PAN before use.

#### 1.2 - Techniques to be developed at LPCE :

Alcaline hydrolysis of PAN gives nitrite and acetate ions. As a consequence, concentration of PAN in organic solvent (hexane to tridecane) can be directly determined by Ionic Chromatography (IC) of nitrite or acetate ions after hydrolysis of the solution. This technique will be developed at LPCE during the contract and compared to the present IR calibration technique and with the spectrophotometric determination of nitrite ions (Saltzman).

The interest of this category of techniques is that it allows the direct determination of the concentration of a solution when the IR technique described above runs only with gases. So, preparation of diluted mixtures by introduction of a small volume of solution in teflon bags can be easily operated on field. The inconvenient is that PAN has to be purified to separate acetate ions which possibly remains in the solution after preparation by nitration of peracetic acid. The need for such a purification will be tested.

Two techniques for injection into the GC will be tested : direct injection of a microliter aliquot of solution of PAN in hexane and preparation of a large volume of gaseous sample in a teflon bag followed by injection of millilitre aliquots in the GC. Direct injections of 4 ml samples with a syringe will be compared to 4 ml injections through the entire sample line and sample loop of the automated device.

The teflon bag technique for preparing diluted mixtures of PAN has to be developed at LPCE. Cross tests between the actual system and the teflon bag system will be carefully performed.

#### 1.3 - Intercalibration campaign :

LPCE will fully participate to the phases CAL1, CAL2 and CAL3 of the program. Solutions similar to those splitted by NILU will be prepared in lab for testing the calibration procedures

before the real phases of intercalibration. It is not sure that all techniques will be ready for the CALL.

## 2 - FIELD MEASUREMENTS :

LPCE has developed an automated device for PAN measurements on field. A system has been run continuously for 3 years in Vosges mountains and another in the Paris area for 2 years. These measurements, stopped in 1990, will be operated again in 1991 and 1992. In addition, a third system is hoped to be installed on the western coast of Brittany during 1991.

The system in Creteil (Paris area) will be used for tests and will be carefully calibrated. It will act as a transportable reference for the calibration of remote PAN stations (see above).

## 3 - ANALYTICAL PROBLEMS :

Various analytical artifacts can disturb the quantitative determination of PAN. One of them is the fixation of a fraction of the sample on the column. This phenomenon has been pointed out by several authors but no systematic study and synthesis have been performed. The quantity of PAN trapped on the column depends on the history of the column : after a long series of close injection of PAN, the trapping sites of the column are saturated and losses of PAN are small. Then, if the column is allowed to wait under carrier gas for one night, for instance, PAN trapped on the column is slowly eluted and the column is now active again for trapping some PAN during the next series of injections. This effect depends on the type of column used and on the individual history and heredity of the column. It can disturb the routine measurements and the calibration runs as well for two reasons : the loss by trapping depends first, on the interval of time between two injections, and second on the quantities injected. Ideally the calibration of the automatic device should be done, first with a sampling quantity of PAN exactly in the range of quantity present in the real sample, second with an interval of time between two injections equal to the routine one. This is not realistic, so possible deviations in the calibration by using more suitable procedures will have to be evaluated.

LPCE will try to evaluate these effects for the system in operation at Creteil. LPCE has not presently specific experience on interference of air humidity. This will be tested by injecting dry and humid gaseous samples of PAN.

## 4 - SYNTHESIS REPORT ON PAN IN THE NORTHERN EUROPE:

During the program good quality field measurements of PAN will be performed by the participants over Europe. LPCE will synthesize the data collected on central and western Europe.





# FACTURE

HEWLETT-PACKARD FRANCE

ORIGINAL

PAGE 1

SOCIETE ANONYME AU CAPITAL DE FF 100 000 000  
 REGIE PAR LES ARTICLES 113 A 115 DE LA LOI  
 SUR LES SOCIETES ANONYMES  
 N° SIRET : F 209 209 209 209 209 209  
 N° SIRET CORRIGE : F 209 209 209 209 209 209  
 SIEGE SOCIAL : AVENUE DU GENERAL DE GAULLE - 94010 CRETEIL  
 TEL : 69.91.85.70 - TELEFAX : 69.91.85.70  
 BUREAU CENTRAL : 94010 CRETEIL  
 CODE LAURE : 94010 CRETEIL

UFR DE SCIENCES ET TECHNOLOGIE - 94  
 AVENUE DU GENERAL DE GAULLE

94010 CRETEIL CEDEX

No. FACTURE : 0352719  
 DATE FACTURE : 21MARO  
 VIREMENT ADMINISTRATIF

UNIVERSITE PARIS VAL DE MARNE  
 UFR LABO DE PHYSICO-CHIMIE DE  
 L'ENVIRONNEMENT - F. RAULIN  
 AV DU GENERAL DE GAULLE  
 94010 CRETEIL CEDEX

REFERENCES CLIENT	REFERENCES HEWLETT-PACKARD
No. CONTRAT : FE004	No. COMMANDE HP : 81AN-00512-004
No. COMMANDE : 903 09482 0313 RO	SUIVIE PAR : MARIE B MAKSUD
A L'ATTENTION DE	EVRY tel (1) 69.91.85.70
	DATE EXPEDITION : 21MARO
	LICENCE EXPORT. :

INSTRUCTIONS D'EXPEDITION ET D'EMBALLAGE ENVOYER

\*FACTURATION SECTIONS 001/002\*

No. FACTURE	QUANTITE	REFERENCE CLIENT	DESCRIPTION	PREX UNITAIRE	PREX TOTAL	
0100	1	5890A	CHROMATOGRAPHE	48095,00	48095,00	
	1	002	220 V single phase	,00	,00	
	1	802	FRENCH MANUAL	,00	,00	
	1	221	DETECTEUR TCD	15285,00	15285,00	
	1	100	INJECTEUR 1/8E	5992,00	5992,00	
			PROMOTION DICOUNT		-18762,00	
			INSTALLATION FEE		2300,00	
		REMISE CONTRACTUELLE	10.0%		-5061,00	
0200	1	19251A	CAPILLARY INLET FO	14340,00	14340,00	
		REMISE CONTRACTUELLE	10.0%		-1434,00	
0300	1	18900K	Kit vanne pr Inst	,00	,00	
	1	200	Kit Vanne	4716,67	4716,67	
		REMISE CONTRACTUELLE	10.0%		-471,67	
					*****	
					65000,00	
					12090,00	
					*****	
					TOTAL FINAL	77090,00
					*****	

U.E.R. de SCIENCES  
 02. AVR. 1990  
 COURRIER ARRIVEE  
 No

T.V.A. 18.6%

LES REGLEMENTS SONT A ADRESSER A NOTRE SIEGE SOCIAL

*Facture fournie le 5/4/90  
 Ave Bar non*

COUPON A JOINDRE A VOTRE REGLEMENT

A SUIVRE

# TECAN AG

CH-8634 Hombrechtikon / Switzerland STEP PL 90 0289

Participant 02

Landhaus Holgass  
 Telefon 055-41 81 11  
 Telex 875844  
 Telefax 055-42 38 83

502-016

I P C E  
 U.F.R. de Sciences  
 et Technologie  
 Av. du Général de Gaulle

F 94010 CRÉTEIL Cedex

Hombrechtikon, 30.12.88

Order-No. Réf. 120/pp dated 06.10.88  
 I N V O I C E 3032 / 3353

Page 1

Art.-No.	Description	Quant.	Price/pc.	Amount	
	Analyseur NO TECAN 770 AL PPT Serial-No. 77002	1	40095.00	40095.00	SFr
	Convertisseur Photolytique PLC 760 Serial-No. 76002	1	12100.00	12100.00	SFr
	Software Value for customs purposes only Sfr. 10.--	1	0.00	0.00	SFr
	Country of origin Switzerland				
	Subtotal			52,195.00	
	Freight-charges		0.00		
				Total	52,195.00
Payment :	30 days net				

Laboratoire de Physico-Chimie de l'Environnement  
 UNIVERSITÉ PARIS VAL-DE-MARNE  
 W. du Général-de-Gaulle, 94010 CRÉTEIL Cedex France  
 ☎ 48.98.91.44 - P. 2495

*Official*

**KIN-ELMER**  
Division Instruments

METAL CAPITAL DE 15.825.000 F.  
N - PARC D'ACTIVITES DE BOIS D'ARCY  
BOIS D'ARCY CEDEX  
30 61 62 - TÉLEX 697 818 F  
16.769.53 F - PAIERIE GÉNÉRALE DU TRÉSOR 35.069  
MAILLES B.303 696 769 - 82 B 1270  
96 769 00056 - CODE APE 5804

094605 (CODE CLIENT A RAPPELER)  
UNIVERSITE PARIS VAL DE MARNE  
U.E.R. DE SCIENCES  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

ADRESSE DE FACTURATION

ORDRE N° 26934-094024 DATE 19/06/86

094024 (CODE CLIENT A RAPPELER)  
UNIVERSITE PARIS XII VAL DE MARNE  
SERVICE FINANCIER  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

A RAPPELER LORS DE VOTRE PAIEMENT  
F. P.S.: 10512

Appeler pour toute correspondance  
COMMANDE: MARCHÉ C.321RGA

CONDITIONS DE PAIEMENT:  
PAIEMENT PAR CHEQUE A 30 JOURS DATE DE LIVRAISON

LIVRAISON 19/06/86

CGI Division Systeme 717

POS.	QUANTITE	REF. CAT. N°	DESCRIPTION	C	PRIX UNITAIRE	MONTANT
001	1	L1160001	I.T.I.R 1710 REMISE	03	213.957.00 16.046.77	197.910.23
002	1	L1060500	IMPRIMANTE PPI REMISE	03	35.000.00 2.625.00	32.375.00
003	1	L1060547	CABLE 05 12 C REMISE	03	1.043.00 78.22	964.78
004	1	L1160030	NAVETTE D'CHANTILLON REMISE	03	10.000.00 750.00	9.250.00
005	1	L1160039	KIT RESOLUTION 10R-1 REMISE	03	14.037.41 1.052.80	12.984.61
007	1	51000517	SUPPORT POUR CELLULE 10 CM	03	0.00	GRATUIT
FRANCO DE PORT ET D'EMBALLAGE FRANCE METROPOLITAINE						
PRIX CONFORME A L'ENGAGEMENT DE REGULATION NO. 85-073 DU 11.01.1985 PARU AU BOCC NO. 1 DU 17.01.85.						
NOTA: Nous acquittons la T.V.A. sur les débits.						
TOTAL HORS TAXES		TAUX T.V.A.	MONTANT T.V.A.	DIVERS H.T.	NET A PAYER	
253.484.59		18.60	47.140.13	FR	300.632.72	

*UFR Sciences  
le 29/9.*

300.632.72 19/06/86 08/06 026934 300.632.72

094024  
UNIVERSITE PARIS XII VAL DE MARNE  
SERVICE FINANCIER  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

**XIN-ELMER**

Elmer Division Instruments

C30

LIVRE A

094605 (CODE CLIENT A RAPPELER)  
UNIVERSITE PARIS VII DE MARNE  
U.E.R. DE SCIENCES  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

ANONYME AU CAPITAL DE 15.825.000 F.  
HANKLIN - PARC D'ACTIVITES DE BOIS D'ARCY  
78391 BOIS D'ARCY CEDEX  
16 (1) 34 60 61 62 - TÉLEX 697 818 F  
C.C.P. PARIS 16.769.53 F - PAIERIE GÉNÉRALE DU TRÉSOR 35.069  
R.C.S. VERSAILLES B 303.696.769 - 82 B 1270  
SIRET 303 696 769 00066 - CODE APE 5804

ADRESSE DE FACTURATION

FACTURE N° 28701-094024 DATE 29/08/86

REF. A RAPPELER LORS DE VOTRE PAIEMENT

N/REF. P.S. 10512

A rappeler pour toute correspondance

V/COMMANDE: MARCHÉ E.321RGA

094024 (CODE CLIENT A RAPPELER)  
UNIVERSITE PARIS XII VAL DE MARNE  
SERVICE FINANCIER  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

CONDITIONS DE PAIEMENT:  
PAIEMENT PAR CHEQUE A 30 JOURS DATE DE LIVRAISON

LIVRAISON 29/08/86

Division Systèmes 117

POS.	QUANTITE	REF. CAT. N°	DESCRIPTION	C	PRIX UNITAIRE	MONTANT
008	1	L1160591	CSI UPDATE KIT.	03	45.000.00	45.000.00
			REMISE		6.998.87	6.998.87
			FRANCO DE PORT ET D'EMBALLAGE FRANCE METROPOLITAINE			
PRIX CONFORME A L'ENGAGEMENT DE REGULATION NO. 85-07359 DU 11.01.1985 PARU AU BOCC NO. 1 DU 17.01.85. NOTA: Nous acquittons la T.V.A. sur les débits.						
TOTAL HORS TAXES		TAUX T.V.A.	MONTANT T.V.A.	DIVERS H.T.	NET A PAYER	
38.503.12		10.60 %	7.161.58	FR	45.664.70	

*UFR financ  
le 29/9.*

45.664.70 29/08/86 10/66 028701 45.664.70

094024  
UNIVERSITE PARIS XII VAL DE MARNE  
SERVICE FINANCIER  
AVENUE DU GENERAL DE GAULLE  
94010 CRETEIL CEDEX

## PAN INTERCALIBRATION-WORK TO BE CARRIED OUT IN PATRAS

The University of Patras will participate in the intercalibration of PAN following the project phases specified in the general technical description of the overall project.

Specifically Patras will employ the two methods currently in use for the calibration of the ECD. The first method is based on PAN conversion to NO, using a Mo-converter and chemiluminescence detection of NO, followed by direct simultaneous injection to the NOx detector and the EC detector. The second method is based on alkaline hydrolysis of gaseous PAN samples and measurement of the resulting nitrite ions as well as acetate ions by ion chromatography.

In addition the University of Patras will perform continuous PAN measurements in the time periods when analysis of the distributed by NILU PAN standards is not carried out. The sampling site will be located on the University grounds in Patras- Rion.



Technical description of the scientific work to be carried out for STEP proposal 900289 "PAN-intercalibration".

Abbreviations used refer to those used by the coordinating institute. The scientific work and time schedule are in line with the project phases as described by the coordinator.

Setting up continuous, fully automated, PAN monitoring at an existing air pollution measuring site. The measurements will be continued over a period of one year to be synchronised with the period of measurement of other participants.

The data will be made available to other participants (EV.I), mainly for the joint publications to be submitted to appropriate international scientific journals, and others on request.

TNO will act as editor for one of the planned publications i.e. "PAN contribution to photooxidant budget over the North Sea region", and contribute to other publications (EV II, EV IV).

The present practice and experience of PAN measurement and calibration at TNO will be described in a state of the art report in the first phase of the project (Prep.I).

Additional methods for the analysis of PAN standard to be used for the intercomparisons will be prepared. The present method is FTIR-analyses of liquid PAN-solutions. The additional method will be hydrolyses of PAN followed by ionchromatographic analysis of nitrate and acetate ions. Both methods will be compared. The results will be reported (Prep. II).

The trial intercomparison and each of three intercalibration rounds will be carried out with the standards distributed by the coordinating institute and liquid standards synthesized by TNO.

Both ionchromatography and FTIR-analyses will be carried out on both samples, at each phase of the project. The calibration of the PAN-analyzer will be carried out at the measurement site with static dilutions of aliquots of standards of both sources in Tedlar bags. The PAN-analyses will sample from the Tedlar bag as under normal (ambient air) sampling. The results will be reported after each round of analysis/calibration (Prep. III, Cal. I, Cal II and Cal. III).

Visits to Brussels and a meeting with all participants at the coordinating institute is foreseen in the project.

TNO will contribute to the joint final reports and publications planned (Ev.II, EV.III and EV.IV).

ANNEX to: STEP PAN intercalibration program.  
METEOROLOGIE CONSULT GMBH

The participation in the PAN intercalibration program includes the PAN measuring and calibration techniques used by METEOCONSULT in Glashuetten and the INSTITUT FUER ATMOSPHAERISCHE CHEMIE in Juelich. The tests, measurements, calibrations and comparisons will be done primarily by Meteoconsult, but the in-expertise and know-how existing in Juelich will be available for the intercalibration project. The scientific evaluation of the data and the planning of the details of the experimental work will be done in close cooperation between Juelich and Glashuetten.

The available instrumentation for the PAN measurements is: automated ECD GC with detection limits about 5ppt without preconcentration and a GC with a preconcentration technique using a cryostat (-85 C) for cooling of the preconcentration loop including a fully automated combination of preconcentration and ECD-GC for PAN measurements in the tropospheric background with detection limits of less than one ppt.

These existing instruments are used routinely for field measurements and are available only for part of the time for the intercomparison experiments. The schedule of the intercomparison is rather tight and necessitates that a PAN instrument is nearly permanently available an additional instrument is needed in each group. It is planned to copy the existing techniques and this instruments will be available solely for the intercomparisons and calibrations. The other instruments will be available for restricted time periods and this will allow parallel operation of similar instruments both with and without a preconcentration step. From these parallel runs, both with calibration gases, ambient air and the distributed PAN solution a realistic evaluation of the performance of the instruments will be possible during the calibration phase of the project. The available calibration techniques are: liquid injection of PAN in dilute solutions, a permeation system capable of generating PAN in the lower ppb and ppt range in calibration gases (moist and dry gases) and a photochemical reaction system for the defined production of PAN in the gas phase. There are several techniques available for the absolute calibration of the "PAN sources": hydrolysis in alkaline solution combined with the determination of acetate, nitrite and nitrate by ionchromatography or colorimetric techniques (only nitrite and nitrate by a modified Griess-Salzmann method) and chemolumineszenz techniques for NO<sub>2</sub>- (following thermal decomposition of PAN) or NO<sub>y</sub>- (total odd nitrogen by catalytic conversion to NO) measurements are most frequently used by the participant.

These various methods allow a variety of checks and cross checks of the different PAN calibration methods.

This contribution also includes measurements at a background station in Tenerife. The instrument stationed in Tenerife will be included in the intercalibrations and thus produce background data which can be compared with the results from rural, semi rural and urban areas.

The work program follows the actual schedule outlined by NILU with calibrations and a dataset of atmospheric PAN measurements. During the phases of the intercalibration program the outlined measuring and calibration procedures will be used and compared with the distributed standards. As part of the preparation phases I and II an instrument (copied from already existing methods) will be built in order to have one instrument which is permanently available for the intercalibration project.

DESCRIPTION OF THE SCIENTIFIC / TECHNICAL PROGRAMME

" TECHNICAL ANNEXE "

STEP PAN-INTERCALIBRATION PROJECT

Peroxyacetyl nitrate (PAN) has been postulated to be a potential tropospheric reservoir of oxides of nitrogen, and to be important in their long-range transport. PAN is consequently considered as an important secondary pollutant formed in the ambient atmosphere during photochemical episodes. This is one of the reasons the Atmospheric Research Division of the Swedish Environmental Protection Agency has been engaged in PAN-measurements last two years.

The objective of the Atmospheric Research Division in the present PAN-intercalibration project are the following:

Sett up a continuous PAN-monitoring with the help of a fully integrated and automated sampling-analysing system with electron capture detector gas-chromatograph, situated in the Aspvreten station (in the central part of Sweden, Location: Lat 58 48,8 N; Long 17 23,5 E; Alt 20 MASL).

The measurements will be continued over a period of one year to be synchronised with the period of measurements of other participants. The ambient PAN-data reported, likewise as scientific work and time schedule will be in accord with the project phases as described by the coordinator.

The calibration PAN-technique used by the Atmospheric Research Division (conversion of PAN to NO and detection simultaneous with a NO-

STEP PL900289

Participant 06

-chemiluminescent analyzer and as PAN with an Electron Capture Detector Gas-Chromatograph, will be available to all intercalibration proposal, proposed by NILU.

The Atmospheric Research Division as a national and scandinavian reference calibration laboratory will supply ambient data PAN to other participants on request, mainly for the joint publications to be submitted to scientific journals or other proposals.

Another technique for calibration proposal (PAN-hydrolyses followed by ionchromatographic analysis of nitrate and acetate, will be compared during the intercalibration and the results will be reported.

The Atmospheric Research Division has been participating in the National Environmental Monitoring Programme and in several international projects: TOR-tropospheric Ozone Research, EMEP-European Monitoring and Evaluation Programme, NMR-Nordic Council of Ministers Working group on Air Pollution, and Dr. Oyola of the Atmospheric Research Division will be editor of the publication "A comparative study of PAN calibration methods", describing the work and sum up the final conclusions of the intercalibration project.



*Consiglio Nazionale delle Ricerche*

AREA DELLA RICERCA DI ROMA

ISTITUTO SULL'INQUINAMENTO ATMOSFERICO

AREA della RICERCA di ROMA II .....  
Posta : Via Salaria Km. 29,300 - C.P. 10  
00016 Monterotondo Stazione (Roma)  
Telefono : Direzione 9005349  
Segreteria 90020265  
Centralino 900201

TECHNICAL DESCRIPTION OF THE WORK TO BE CARRIED OUT AT THE ISTITUTO SULL'INQUINAMENTO ATMOSFERICO DEL CNR, MONTELIBRETTI (ROME), ITALY WITHIN THE FRAMEWORK OF THE CEE-STEP PROJECT ON "PAN-INTECOMPARISON".

PROPOSAL No. PL 900289

CO-ORDINATOR - DR. T. KROGNES - NILU - NORWAY

Participant No. 07 - P. CICCIOLO - CNR - MONTELIBRETTI - ITALY

The main tasks of the project can be summarized as it follows:

a) Find the most accurate and reliable methods and procedures for calibrating instruments dedicated to PAN determinations in air.

b) Achieve simultaneous information on PAN levels in various European Countries under controlled analytical conditions so that truly comparable results will be produced. The knowledge of precision and accuracy in PAN measurements, obtained through extensive and repeated intercalibration runs, represents the crucial point of this project.

The two tasks will be achieved in two years through three basic steps named as Preparation, Calibration and Evaluation phase respectively. For sake of clarity we will refer to these steps for describing the activity that will be carried out in our Institute.

The Preparation phase will take about 8 months of the first year of the project. During this time the activity in our Institute will be devoted to develop and consolidate the existing methods for PAN calibration.

In addition to the conventional methods (static gaseous, liquid reactions) a new PAN-generator for field calibration will be built and tested. Known concentrations of PAN at ppb levels in air will be obtained by irradiating with an U.V. lamp mixtures of NO<sub>2</sub> and acetaldehyde (propionaldehyde for PPN) dynamically generated by permeation devices. The content of PAN in the gas stream will be evaluated by Ion Chromatography after performing

alkaline hydrolysis of known volumes of gas. By removing the interferences coming from the excess of  $\text{NO}_2$  and  $\text{O}_3$  present in the reaction mixture, a good quantification of PAN can be achieved. The same procedure can be used for producing known concentrations of PAN in liquid solutions such as nonane or other hydrocarbons. The sample purity of these last mixtures can be checked by Infrared Spectroscopy.

The Calibration phase, that will be extended through the last part of the first year and through all second year, will be devoted to test and compare the methods developed or consolidated by the Participants. During this time repeated determinations of PAN-intercomparison standard mixtures, provided by the coordinator, will be performed. The PAN-content in these mixtures will be used for quality control analysis whereas the PAN purity will be checked by GC-ECD and Ion Chromatography after alkaline hydrolysis of the extracted sample. Infrared Spectroscopy will be used for qualitative determinations. During this step it will be possible to detect whether consolidated methods used by the Participants can be used as reference sources. A statistical evaluation of the content of PAN made by each laboratory will permit a good determination of the "true value".

The Evaluation phase, that will be concurrent with the Calibration phase, will consist of two parts:

- 1) Collection of PAN data in the area surrounding Rome under controlled conditions.
- 2) Evaluation of atmospheric data coming from all the Participants located in Southern Europe (Italy, Greece, Spain).

The data received from these Participants will be used to detect the regional cycles of PAN in the Mediterranean area. The knowledge of PAN levels in these regions is crucial to understand the sources and fate of this photochemical pollutant in the Mediterranean Region as little amounts of data have been collected so far and they might be also affected by some sources of error due to the calibration methods.



MINISTERIO DE SANIDAD Y CONSUMO

INSTITUTO DE SALUD CARLOS III

SUBDIRECCION GENERAL DE CONTROL

METODOLOGIA ANALITICA DEL PROYECTO DE "INTERCALIBRACION DE PAN"

---

El análisis y determinación de PAN, se realizará en diferentes etapas:

- Síntesis de PAN según T. Nielsen, (1.982)
- Purificación de las soluciones de PAN por cromatografía líquida de alta resolución
- Determinación del contenido de PAN por cromatografía iónica, hidrolizando la solución que permita saber la concentración de ion nitrito y nitrato.
- Calibración del cromatógrafo de gases con detector de captura electrónica, con el patron obtenido
- Toma de muestras y análisis de las mismas por cromatografía de gases.

DESARROLLO DEL PROGRAMA

- 5 primeros meses.- Puesta a punto del método analítico, síntesis de patrones, calibración de los equipos y elaboración de un informe que se enviará al coordinador del proyecto.
- 6 mes .- Calibración de los patrones propios y del patron enviado por el NILU con diferentes métodos, calibrándose el cromatógrafo de gases con estos patrones.







CENTRO NACIONAL DE SANIDAD AMBIENTAL

## MINISTERIO DE SANIDAD Y CONSUMO

INSTITUTO DE SALUD CARLOS III

SUBDIRECCION GENERAL DE CONTROL

6 - 12 meses.- Se llevarán a cabo 2 intercalibración con el patron distribuido por el NILU.

2º año .- Tercera calibración.

Durante todo este tiempo se tomaran muestras en distintos puntos de Madrid, para determinar los niveles de PAN y su variación en las distintas épocas del año, así como las relaciones con otros oxidantes fotoquímicos atmosféricos.



**ENCLOSURE 9**

Copies of the completed contract negotiation  
forms for all participants





## Notes concerning page 2

**Participant number:** each participant must use the same acronym and participant number as in the original proposal submitted to the Commission. New participants, not included in the original proposal, should use numbers following those previously used. An extract of the information submitted in the original proposal will be attached to the contract negotiation form. If there is any change to the original participant structure, the coordinator should complete Annex II; if there is any change to the administrative details in the original proposal, or if there is a new participant, the relevant participant should complete Annex III.

**Breakdown of costs:** the figures to be inserted should correspond to the total specified on page 4 for each participant.

**Consortium agreement:** the participants are not required to conclude a consortium agreement amongst themselves. They may, however, consider it an appropriate mechanism to outline more precisely the coordinator's tasks; to establish a project coordination committee; to agree procedures for the distribution of the EC contribution, limitations on financial claims, indemnities amongst themselves and the effects of delayed financial or technical reporting (the EC may withhold payments until the next reporting period if there are delays); to identify the specific background results to be made available for the project; and to agree conditions concerning the use of results which complement the framework laid down in the Model RTD Contracts (participants should note that any arrangements must comply with competition rules under the EEC Treaty — see Art. 7.2 of the Model RTD Contracts).

EN C1 101570	FOR COMMISSION USE
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

**PART 1 — PROJECT SYNOPSIS**

**RESOURCES NECESSARY TO CARRY OUT THE PROPOSED PROJECT**

START DATE

DURATION (months)

Breakdown of estimated total cost by participant  
(as specified on page 2 of the original proposal or in Annex II if completed)

Different to original proposal  complete  
Same as original proposal  (proceed to next question — consortium agreement)

PARTICIPANT NUMBER	NATIONAL CURRENCY	ECU	
		Total	EC Contribution
01 COORDINATOR	Total: <input type="text" value="2129949"/> Currency Code: <input type="text" value="NOK"/>	<input type="text" value="266244"/>	<input type="text" value="60000"/>
02	<input type="text" value="368152"/> <input type="text" value="FRF"/>	<input type="text" value="46000"/>	<input type="text" value="46000"/>
03	<input type="text" value="9600000"/> <input type="text" value="GRD"/>	<input type="text" value="53333"/>	<input type="text" value="48000"/>
04	<input type="text" value="211600"/> <input type="text" value="NLG"/>	<input type="text" value="92000"/>	<input type="text" value="46000"/>
05	<input type="text" value="313200"/> <input type="text" value="DEM"/>	<input type="text" value="152039"/>	<input type="text" value="70000"/>
06	<input type="text" value="1150000"/> <input type="text" value="SEK"/>	<input type="text" value="153370"/>	<input type="text" value="40000"/>
07	<input type="text" value="69000000"/> <input type="text" value="ITL"/>	<input type="text" value="46000"/>	<input type="text" value="46000"/>
08	<input type="text" value="12019000"/> <input type="text" value="ESP"/>	<input type="text" value="100000"/>	<input type="text" value="44000"/>
09	<input type="text"/> <input type="text"/>	<input type="text"/>	<input type="text"/>
TOTAL COST (ECU)		<input type="text" value="908986"/>	
FINANCIAL CONTRIBUTION REQUESTED FROM EC (ECU):		<input type="text" value="400000"/>	

Have the terms of the consortium agreement, if any, between the participants been agreed?

N/A  YES  NO  →

Date expected to be finalised

Has it been necessary to complete Annex II

NO  YES

(Join the Annex duly completed)

**We certify that the project details set out in Part 1, and Annex II if completed, are correct.**

(authorised Scientific Official)

(authorised Administrative Official)

Name:

Name:

Status:

Status:

Date:

Date:

Signature: *Serge Krognès*

Signature: *H. Dowlund*



### Notes concerning page 3

The categories of participants are:

**A contractor** (partner) who will be a signatory to the contract with the Commission and, in addition to performing essential work on the research project, must contribute to the costs of the research project.

An **associated contractor** who will perform work on the project and must contribute to the costs of the research project, but will not be a signatory to the contract with the Commission. (For example: those organisations making small contributions to the work to be performed. Note that organisations seeking to recover their costs on a marginal cost basis, but which do not intend to be a signatory to the contract with the Commission, should be treated as associated contractors).

A **subcontractor** who will be fully reimbursed by a contractor or an associated contractor and will not financially contribute to the costs of the research project.

A subcontractor is a **major subcontractor** if its estimated costs for its part of the work exceed 100,000 ECU or 20% of the costs of the contractor or associated contractor to which it is linked.

**Associated contracts** between a contractor and an associated contractor must be submitted to the EC for approval. Article 3.2 of Annex II of the Model RTD Contracts specifies principles which must be included in the associated contract.

PARTICIPANT NUMBER

01

(as specified on page 2 of the original proposal or in Annex II if completed)

FOR COMMISSION USE										
EN	DD	101570								

PART 2 — PARTICIPANT INFORMATION

(to be completed by each participating organisation specified on page 2)

THE COORDINATOR  CR  AC  SC  Linked to Contractor: (number specified on page 2 e.g. 01)

2A — ADMINISTRATIVE DETAILS AND COSTS

FULL LEGAL NAME OF ORGANISATION

Person to sign contract

Surname

Christian name

Title

Position

Name of person responsible for the negotiation of the contract	<input type="text" value="MR PAAL BERG"/>
--	---

Position	<input type="text" value="CHIEF OF ADMINISTRATION"/>
----------	--

Address, telephone, telex, telefax, etc.:

- as registered or principal office specified in original proposal
- as establishment, department, etc. specified in original proposal
- if different, or some details differ, specify as appropriate:

Street: No.

Town:  Postal Code:  CEDEX:

Country:  Code:  Telephone:  Ext.:

Telex:  Telefax:

Teletext:  E-Mail Type:

Have the draft terms of any associated contract been agreed?

N/A  YES  NO  → Date expected to be agreed

#### Notes concerning page 4

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

PARTICIPANT NUMBER

FOR COMMISSION USE

EN EE 101570

National currency (specify)

Currency code

ESTIMATED BREAKDOWN OF COSTS

By category for the project

By year for the project

Category	Amount	1991	1992
<b>Direct costs</b>			
Labour	<input type="text" value="1603280"/>	<input type="text" value="1173511"/>	<input type="text" value="956438"/>
Travel and subsistence	<input type="text" value="176669"/>	<input type="text"/>	<input type="text"/>
Durable equipment	<input type="text" value="160000"/>	<input type="text"/>	<input type="text"/>
Consumables	<input type="text" value="100000"/>	<input type="text"/>	<input type="text"/>
External assistance	<input type="text"/>	<input type="text"/>	<input type="text"/>
Computing	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other (express air parcels)	<input type="text" value="90000"/>	<input type="text"/>	<input type="text"/>
<b>Indirect costs</b>			
Overheads	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>TOTAL</b>	<input type="text" value="2129949"/>	<b>TOTAL</b>	<input type="text" value="2129949"/>

TOTAL ECU

Basis of costs:

full

marginal

For universities and higher education establishments only, are full costs being used for all EC RTD projects?

YES

NO

Specify which programmes:

Can the participant recover by any means VAT to be paid in connection with carrying out the project?

YES

NO

2B — FINANCING OF PROJECT

Financial contribution requested from EC

(National currency)

(ECU)

Sources for costs not sought from EC:

Participants:

Third parties:

State Public:

Private:

Funding confirmed

YES NO



Date last decision expected

Total amount of funding

If a third party financing the costs is situated outside the EC, or is owned or controlled by a third party situated outside the EC, specify:

Name	Amount of funding	Currency code	Country
<input type="text" value="NTNF"/>	<input type="text" value="1650000"/>	<input type="text" value="NOK"/>	<input type="text" value="NORWAY"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

use typewriter set at 10 characters/inch --- Do not fold or staple the form

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	Y1	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2C — MAJOR FINANCIAL, COSTING AND ACCOUNTING PRINCIPLES OF PARTICIPATING ORGANISATION AND RTD RATES**

Financial year of organisation  to

Last audited financial year  to

Turnover during the last three financial years (commencing with most recent)

<input type="text" value="61600000"/>	<input type="text" value="56400000"/>	<input type="text" value="46500000"/>
---------------------------------------	---------------------------------------	---------------------------------------

Results of the last three financial years (commencing with most recent)

(PROFIT) +	<input type="text" value="3200000"/>	<input type="text" value="1600000"/>	<input type="text" value="1800000"/>
(LOSS) -	<input type="text"/>	<input type="text"/>	<input type="text"/>

Specify the major financial, costing and accounting principles adopted and applied by the participant (if overheads are recovered on cost categories other than labour this should be identified)

Information previously specified to DG XII

YES  → Proposal No.

Programme

(Proceed to next question - page 7)

NO  (complete)

The Norwegian Institute for Air Research is an independent self owned foundation established by the Royal Norwegian Council for Scientific & Industrial Research (NTNF). The financing is based on a yearly contribution from the Norwegian Government ( 20%) and research contracts ( 80%). Costing and accounting principles are project oriented similar to private consultant companies.







#### Notes concerning page 7

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. **ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.**

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

BE = the 3 Regions

DE = the 11 Länder

ES = the 2 autonomous regions (Pais Vasco; Cataluña)

IT = the 5 Regioni a Statuto Speciale.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	FF	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have the cost principles specified by the EC been applied in calculating the cost for the project (e.g. no profit; no notional costs; use of historic costs and not current costs; no imputed or deemed interest; exclusion of non allowable costs, etc.):

YES  NO

If NO, please — identify the principles not applied,  
 — specify the impact of not applying these principles, and  
 — justify the reasons for not applying them.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Have the above financial, costing and accounting principles been used for other financial support received from another EC Directorate General?

NO  YES  → Specify DG

Has the structure of the labour or overhead rates used for the cost of this project also been used and approved for financial support received from another EC Directorate General?

Labour	NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text"/>	<input type="text"/>
Overheads	NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text"/>	<input type="text"/>

**Government rates**

Does the participant carry out cost-shared RTD work with the government of its Member State?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Has the government approved labour and overhead rates excluding profit for carrying out such RTD work?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Are the principles for the rates to be used by the participant for the EC the same as those for such cost-shared RTD work carried out with the government (after any appropriate adjustments specified on next page):

YES  → (Complete details on pages 8 and 9)  
 NO  → (Complete Annex I and proceed to part 2D)

**Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

PARTICIPANT NUMBER

FOR COMMISSION USE										
EN	V1	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Grades of labour to be charged to the project

		Latest approved govt. hourly labour rate	Latest approved govt. hourly overhead rate	Revised hourly overhead rate excluding non- allowed EC costs
<input type="text" value="01"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="02"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="03"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="04"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="05"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="06"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Are these government rates used for all cost-shared RTD work with the government?

YES  NO  Provide details of any lower rates:

Details of adjustments to government hourly overhead rate to arrive at revised rates:  
(indicate deductions by -; additions by +).

Date of latest approved government labour and overhead rates:

Date of last audit carried out by the government of labour and overhead rates:

Details of the official responsible for verifying the financial, costing and accounting principles for the government:

Name

Name of government department

Street: No.

Town:  Postal Code:  CEDEX:

Country:  Code:  Telephone:  Ext:

Telex:  Telefax:

Teletext:  E-Mail Type:

use typewriter set at 10 characters/inch - Do not fold or staple the form

#### **Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.

PARTICIPANT NUMBER

FOR COMMISSION USE										
EN	KK	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Will the labour costs be charged to the project on the basis of:

Actual salaries

Average salaries

Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

Percentage increase in estimated labour and overhead rates from rates on previous page for each year of project:

Same for all grades  (only complete 01)

Different for all grades  (complete for each grade)

Category	Labour					Overheads				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
01	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
02	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
04	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
05	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Average annual % increase

Average annual % increase

## Notes concerning page 10

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	X1	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2D — BREAKDOWN OF COSTS

Date of annual change for rates to be used

2D(1) — LABOUR COSTS AND OVERHEADS

(to be completed for each category specified on page 8 or page I-1 Annex I, if completed)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
Basis used:					
Hours <input checked="" type="checkbox"/> Months <input type="checkbox"/>					
Category 01	SCIENTIST		overhead included		
<input type="text" value="1991"/>	<input type="text" value="1204"/>	<input type="text" value="606"/>	<input type="text" value="792624"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="1992"/>	<input type="text" value="852"/>	<input type="text" value="643"/>	<input type="text" value="612136"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			<input type="text" value="1494760"/>	Subtotal	<input type="text"/>
Category 02	TECHNICIAN				
<input type="text" value="1991"/>	<input type="text" value="260"/>	<input type="text" value="462"/>	<input type="text" value="120120"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="1882"/>	<input type="text" value="169"/>	<input type="text" value="490"/>	<input type="text" value="78400"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			<input type="text" value="198520"/>	Subtotal	<input type="text"/>
Category 03					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			<input type="text"/>	Subtotal	<input type="text"/>

Do not fold or staple the form. Use a paperclip or at 10 characters each.





PARTICIPANT NUMBER 01

FOR COMMISSION USE									
EN	X2	101570	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2D(1) — (continuation)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
Category 04					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotal	<input type="text"/>	Subtotal	<input type="text"/>
Category 05					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotal	<input type="text"/>	Subtotal	<input type="text"/>
Category 06					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotal	<input type="text"/>	Subtotal	<input type="text"/>
Total (01 to 06)			<input type="text" value="1603280"/>	Total (01 to 06)	
			TOTAL		<input type="text" value="1603280"/>

## **Notes concerning page 12**

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.



### **Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).





PARTICIPANT NUMBER 01

FOR COMMISSION USE									
EN	NN	101570			NN				

Has it been necessary to complete

ANNEX I NO  YES  (Join the Annex duly completed)

ANNEX III NO  YES  (Join the Annex duly completed)

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We certify that the information in Part 2, and Annexes I and III if completed, is correct and true and that the financial information complies with the definition of allowable costs in the model RTD contract (1.10.1988) and cost principles specified by the EC

(authorised Scientific Official)

Name: T. . KROGNES

Status: SCIENTIST

Date: 19900824

Signature: Terje Krognnes

(authorised Administrative Official)

Name: H. . DOVLAND

Status: DIRECTOR

Date: 19900824

Signature: H. Dowlund



**Notes concerning page I-1**

**Grades of labour** to be charged to the project. See notes concerning page 8.

PARTICIPANT  
NUMBER

01

(as specified on page 2  
of the original proposal  
or in Annex II if com-  
pleted)

FOR COMMISSION USE

EN 00 101570

**ANNEX I —  
DETAILED LABOUR AND OVERHEAD CALCULATIONS**

ONLY TO BE COMPLETED  
IF APPROVED RTD RATES NOT USED  
(see instructions to participants)

**LABOUR**

— Salaries

Information previously specified to DG XII

YES  → Proposal No.

Programme

(Proceed to next question  
— grades of labour)

NO  ↓ (complete)

Will the labour costs be charged to the project on the basis on:

Actual salaries       Average salaries       Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

The hourly rates are based on average salaries, social expenses and overhead. Two personnel categories are used, scientists and technicians.

— Grades of labour

Grades of labour  
to be charged to the project

Same for all grades

Different for some or all grades

Date of salary increases       Percentage added to gross salary for social and pension contributions

(only complete 01)

(complete for each grade)

Grades of labour to be charged to the project	Date of salary increases	Percentage added to gross salary for social and pension contributions
01 SCIENTIST	19910701	30
02 TECHNICIAN	<input type="text"/>	<input type="text"/>
03	<input type="text"/>	<input type="text"/>
04	<input type="text"/>	<input type="text"/>
05	<input type="text"/>	<input type="text"/>
06	<input type="text"/>	<input type="text"/>

**Notes concerning page I-2**

**Workable (productive) days and hours:** the number of workable (productive) days acceptable to the Commission is normally no less than 210 days per person year. The number of workable (productive) days should be multiplied by the average number of working hours per day to arrive at the total workable (productive) hours per person year.

PARTICIPANT NUMBER

FOR COMMISSION USE						
EN	PP	101570	<input type="text"/>	<input type="text"/>	PP	<input type="text"/>

— Number of hours

Information previously specified to DG XII

YES  → Proposal No.

Programme

(Proceed to next question — annual salaries)

NO  (complete)

↓

For each grade of labour on page I-1, specify the number of hours per year used for costing purposes:

Is the number the same for all categories? YES  (only complete 01)

NO  (complete for each grade)

	<input type="text" value="01"/>	<input type="text" value="02"/>	<input type="text" value="03"/>	<input type="text" value="04"/>	<input type="text" value="05"/>	<input type="text" value="06"/>
Maximum annual working days	<input type="text" value="236"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Less deductions for:						
— Statutory holidays	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
— Annual holidays	<input type="text" value="10"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
— Illness	<input type="text" value="6"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
— Other (specify and justify below)						
<input style="width: 300px;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input style="width: 300px;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input style="width: 300px;" type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total workable (productive) days	<input type="text" value="220"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Equivalent total workable (productive) hours	<input type="text" value="1250"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Justification for other deductions in above calculation

Workable (productive) hours are adjusted for time consumption for other purposes like administrative obligations, participation in symposia for scientists and other not chargeable activities.

**Notes concerning page I-3**

**Hourly costs:** those participants working on the basis of marginal costs and using monthly labour cost rates should complete only part of this question. The percentage increases (by reference to annual salaries) for the subsequent years of the project should be specified.



#### Notes concerning page I-4

**Overhead calculation:** the overheads are generally intended to cover indirect costs (excluding those items chargeable separately as direct costs) necessary to employ, manage, accommodate and support the labour directly performing the work of the project. The overhead costs should primarily relate to the infrastructure and support services of the cost centre (e.g. division, department, etc.) where the project is to be carried out, and other essential on-site services for the cost centre to carry out its RTD activities. A reasonable share of those main cost categories specified on page I-4 will be allowable provided that the principles used for the apportionment and allocation of overheads specified on page I-7 are reasonable. Details of any assumptions used in the overhead calculation must be specified on page I-7.

Costs of in-house research studies, funded entirely by the participant, may be included in the overhead calculation if it is demonstrated that the results of the studies benefit the project or related Commission projects. The **maximum** acceptable rate for in-house studies is 10% of the labour cost rate and overhead rate.

Costs relating to the leasing of fixed assets (buildings and capital equipment) are allowable, but any interest or financial charges must be excluded. Leasing costs will not be accepted where the leasing arrangement has the effect of unnecessarily increasing the charge made to the project (for example, due to costs being charged over a shorter lifespan than would normally be the case if the asset were purchased and depreciated in the normal way).

Overheads should be recovered preferably on a per head basis irrespective of grade or salary, but other methods may be used if they provide fair and reasonable results.

Overheads for universities and higher education establishments operating on the full cost basis should relate to the research activities only (all expenditure relating to teaching, students, and non research activities must be excluded). **SUCH ORGANISATIONS OPERATING ON THE MARGINAL COST BASIS SHOULD NOT COMPLETE THIS PART OF THE FORM;** in this case overheads may be charged at a fixed percentage, corresponding to a maximum of 20% of all cost categories except associated contracts and VAT.

PARTICIPANT NUMBER **01**

FOR COMMISSION USE									
EN	RR	101570	<input type="text"/>	<input type="text"/>	RR	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**PROJECT OVERHEADS**

— Only to be completed by participants using full costs;  
 — No further information in Annex I to be provided by other participants.

Equivalent for last audited financial year (actual)

— Overheads to be allocated to the project

**(1) Related to cost centre (e.g. division or department) where project is to be carried out**

First year of project (budget)

**1991**

**1989**

Support staff	7200000	\$430000
Materials	7000000	\$300000
Telephones and postal services	1050000	835000
Energy and water	1700000	1310000
Travel	300000	240000
General equipment	6100000	4490000
Buildings: — depreciation	700000	595000
— rent	3100000	2335000
Other: <input type="text" value="INSURANCE"/>	350000	280000
(specify) <input type="text" value="OFFICE CONSUMABLES"/>	1700000	1285000
<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal:	29650000	22100000

**(2) Related to site where project is to be carried out**

Administrative and management	<input type="text"/>	<input type="text"/>
Security	<input type="text"/>	<input type="text"/>
Canteen facilities	<input type="text"/>	<input type="text"/>
Insurance	<input type="text"/>	<input type="text"/>
General equipment	<input type="text"/>	<input type="text"/>
Buildings: — depreciation	<input type="text"/>	<input type="text"/>
— rent	<input type="text"/>	<input type="text"/>
In-house studies	<input type="text"/>	<input type="text"/>
Other: <input type="text"/>	<input type="text"/>	<input type="text"/>
(specify) <input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal:	29650000	22100000

To be carried forward:

	<input type="text"/>	<input type="text"/>
--	----------------------	----------------------

USE APPROPRIATE BOXES TO CATEGORISE/INPUT





PARTICIPANT  
NUMBER

FOR COMMISSION USE										
EN	SS	101570	<input type="text"/>	<input type="text"/>	<input type="text" value="S"/>	<input type="text" value="S"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**OVERHEADS** (continuation)

	First year of project (budget)	Equivalent for last audited financial year (actual)
	<input type="text" value="1991"/>	<input type="text" value="1989"/>
Carried forward:	<input type="text" value="29650000"/>	<input type="text" value="22100000"/>

**(3) Non site overheads**

(Specify and justify below)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal:	<input type="text"/>	<input type="text"/>
<b>TOTAL:</b>	<input type="text" value="29650000"/>	<input type="text" value="22100000"/>

Justification for in-house studies and any non site overheads.

<table border="1" style="width: 100%; height: 15px;"> <tr> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> <td style="width: 5%;"><input type="text"/></td> </tr> </table>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		

— use typewriter set at 10 characters/inch — do not use or staple the form



PARTICIPANT  
NUMBER 01

FOR COMMISSION USE									
EN	TT	101570			TT				

**OVERHEADS** (continuation)

If the items specified on pages 1-4 and 1-5 are grouped by the participant in any other manner, please complete the table below indicating the categories of costs used in a clear and unambiguous manner.

Category	First year of project (budget)	Equivalent for last audited financial year (actual)
(1) <b>Related to cost centre (e.g. division or department) where project is to be carried out</b>		
Subtotal:		
(2) <b>Related to site where project is to be carried out</b>		
Subtotal:		
(3) <b>Non site overheads</b> (Specify and justify)		
Subtotal:		
TOTAL:		

— use typewriter set at 10 characters/inch — Do not fold or staple the form

Justification for in-house studies and any non site overheads must be inserted on previous page 1-5.



PARTICIPANT NUMBER 01

FOR COMMISSION USE										
EN	UU	101570			UU					

OVERHEADS (continuation)

For each cost category included in the project overheads specified in the previous pages, specify in sufficient detail the method of apportionment and allocation of overheads to the cost centre and the project (e.g. headcount, space, etc.).

Information previously specified to DG XII

YES  → Proposal No.

Programme

(Proceed to next question - site RTD costs)

NO  (complete)

The total overhead costs are allocated in the same manner as a percentage to the direct cost of the services undertaken.

non approuvées par la Commission européenne

ORIGINALS MUST BE USED

Further copies may be obtained from the Commission

**Notes concerning page I-8**

**Personnel numbers:** the RTD personnel should correspond to the number of staff directly engaged in undertaking RTD activities; all other staff should be included in the figure relating to the number of other personnel.







PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	WW	101570	<input type="text"/>	<input type="text"/>	WW	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**OVERHEADS** (continuation)

— Recovery of overheads (amount specified on page I-5 or page I-6) to categories of labour on an hourly basis

Is the overhead recovered on a per head basis	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
	(complete)	Equivalent for last audited Financial year (actual)
	First year of project (budget)	Equivalent for last audited Financial year (actual)
	<input type="text" value="1991"/>	<input type="text" value="1989"/>
(a) total number of productive personnel in the cost centre at which the project is to be carried out	<input type="text" value="XXXXXXXXXX 80"/>	<input type="text" value="XXXXXXXXXX 68"/>
(b) total number of workable (productive) hours for such personnel	<input type="text" value="XXX 100000"/>	<input type="text" value="XXX 85000"/>
(c) amount of overheads specified on page I-5 or page I-6	<input type="text" value="29650000"/>	<input type="text" value="22100000"/>
(d) hourly overhead rate per head (c ÷ b)	<input type="text" value="XXXXXXXXXX 300"/>	<input type="text" value="XXXXXXXXXX 260"/>

If the participant does not recover overheads on the above per head basis

	First year of project (budget)	Equivalent for last audited Financial year (actual)
	<input type="text"/>	<input type="text"/>
	<input type="text" value="XXXXXXXXXX"/>	<input type="text" value="XXXXXXXXXX"/>

Specify hourly overhead rate

Details of calculation of recovery of overhead rate to be specified on page I-10)

— Hourly overhead rates for each year of project

First year of project	<input type="text" value="1991"/>	<input type="text"/>	
	<input type="text" value="1992"/>	<input type="text"/>	% increase <input type="text"/>
	<input type="text" value="1993"/>	<input type="text"/>	% increase <input type="text"/>
	<input type="text" value="1994"/>	<input type="text"/>	% increase <input type="text"/>
	<input type="text" value="1995"/>	<input type="text"/>	% increase <input type="text"/>
	<input type="text" value="1996"/>	<input type="text"/>	% increase <input type="text"/>
			Average annual % increase <input type="text"/>





PARTICIPANT  
NUMÉRO

02

(comme indiqué en page 2 de la proposition initiale ou dans l'annexe II si celle-ci a été complétée)

RÉSERVÉ À LA COMMISSION									
FR	DD	201230							

**PARTIE 2 — INFORMATIONS CONCERNANT LES PARTICIPANTS**

(à remplir par chaque organisme participant mentionné en page 2)

LE COORDONNATEUR  CR  AC  SC  Lié au contractant:   
(numéro indiqué en page 2, p. ex. 01)

**2A — RENSEIGNEMENTS ADMINISTRATIFS ET COÛTS**

DENOMINATION LÉGALE COMPLÈTE DE L'ORGANISME: UNIVERSITY PARIS XII

Nom de la personne autorisée à signer le contrat:

Nom: LAURENT

Prénom: DANIEL

Titre: PROFESSOR

Fonction: PRESIDENT

Nom de la personne responsable de la négociation du contrat: TOUPANCE

Fonction: PROFESSOR

Adresse, téléphone, télex, télécopieur, etc.:

— siège social ou principal identique à celui indiqué dans la proposition initiale

— établissement, département, etc. identique à celui indiqué dans la proposition initiale

— si différents, ou si certains renseignements doivent être modifiés, prière de les indiquer ci-après:

Rue: N° GENERAL DE GAULLE

Ville: CRETEIL Code postal: 94000 CEDEX: 94010

Pays: FRANCE Téléphone: 33148989144 Ext: 2495

Télex: UPVMINT264167 F Télécopieur: 42077012

Télételex: Courrier électronique:

Y a-t-il eu accord sur le contenu des projets de contrats associés?

N/A  OUI  NON

Date prévue pour l'accord

ATTENTION: Prière de compléter ce formulaire avec soin en vue de son utilisation en LECTURE OPTIQUE. Ne pas plier ni agraffer le formulaire. d'utiliser une machine à écrire réglée à 10 caractères/pouce

#### **Notes concernant la page 4:**

**Ventilation des coûts:** les chiffres doivent correspondre au total de chaque catégorie de coûts détaillée dans les différentes pages de la partie 2 du formulaire.

Les coûts doivent être calculés de façon à inclure des provisions pour augmentation des salaires ou des coûts, l'inflation, etc. Des informations sur les pourcentages d'augmentation sont requises dans les différentes pages.

**Pour les participants de la Communauté ou de l'AELE, la ventilation estimée des coûts ainsi que le calcul des différents coûts dans la partie 2 (et dans l'annexe I si celle-ci a été complétée) devront être effectués dans la monnaie nationale du participant concerné.** Pour les programmes de RDT où des participants sont situés dans des pays en développement ou en dehors de l'Europe Occidentale (par exemple, en Afrique, en Asie, en Amérique du Nord ou du Sud), la monnaie utilisée pourra être la monnaie dans laquelle la comptabilité est tenue, si celle-ci est différente de la monnaie nationale, ou la monnaie normalement utilisée pour la facturation, mais elle devra être de préférence l'écu, le dollar américain ou la monnaie de l'un des Etats membres de la Communauté.

#### **Base de calcul des coûts:**

L'utilisation des **coûts marginaux** est limitée aux universités, aux établissements d'enseignement supérieur et aux organismes similaires non commerciaux dont l'activité principale n'est pas liée à des activités de recherche. Les coûts marginaux sont tous les coûts réels occasionnés par le projet de recherche qui viennent s'ajouter aux coûts habituels normaux.

L'utilisation du **coût global** concerne tous les autres organismes. La formule du coût global pourra être utilisée en remplacement de celle du coût marginal par les organismes mentionnés au paragraphe précédent dès lors qu'ils pourront démontrer valablement à la Commission qu'ils disposent d'un système comptable adapté à cette formule. Toutefois, le choix entre les deux formules du coût global et du coût marginal devra se faire de façon conséquente.

PARTICIPANT  
NUMÉRO 02

RÉSERVÉ À LA COMMISSION

FR EE 201230

Monnaie nationale (préciser)

Code monnaie

FRANC FRANCAIS

FIR

VENTILATION ESTIMÉE DES COÛTS

Par catégorie de coûts

Par année de recherche

Coûts directs		1991	1992
Personnel	188992	200000	168152
Déplacements	45000		
Matériel durable	60000		
Matériel consommable	60000		
Sous-traitance			
Coûts informatiques			
Autres dépenses			
Coûts indirects			
Frais généraux	14160		
<b>TOTAL</b>	<b>368152</b>	<b>368152</b>	

TOTAL ÉCU 46000

Base de calcul des coûts: Coût global  Coût marginal

Uniquement pour les universités et les établissements d'enseignement supérieur: le coût global sera-t-il utilisé pour tous les projets de RDT avec les CE? OUI  NON

Indiquer les programmes concernés:

Le participant a-t-il la possibilité de récupérer la TVA acquittée dans le cadre de l'exécution du projet? OUI  NON

2B — FINANCEMENT DU PROJET

(Monnaie nationale)

(ÉCU)

Contribution financière demandée aux CE: 368152 46000

Sources de financement prévues pour le montant non demandé aux CE:

Participants:

Tiers: État/Public  Privé:

Montant total du financement

Financement confirmé OUI  NON  Date à laquelle la décision définitive est attendue 1988

Si un organisme contribuant au financement des coûts est situé en dehors de la Communauté ou est contrôlé par un tiers situé en dehors de la Communauté, indiquer:

Nom de l'organisme	Montant du financement	Code pays	Pays
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ATTENTION. Prière de compléter ce formulaire avec soin en vue de son utilisation en LECTURE OPTIQUE. Ne pas plier ni agraffer le formulaire. d'utiliser une machine à écrire réglée à 10 caractères/pouce.

**Note concernant la page 5:**

**Chiffre d'affaires et résultats:** un exemplaire du rapport annuel et des bilans pour chacune des années mentionnées devra être joint, à moins que ces documents n'aient déjà été fournis.



PARTICIPANT  
NUMÉRO **02**

RÉSERVÉ À LA COMMISSION									
FR	Y1	201230							

**2C — PRINCIPALES RÈGLES FINANCIÈRES ET COMPTABLES DES ORGANISMES PARTICIPANTS ET TARIFS APPLICABLES AUX ACTIVITÉS DE RDT**

Exercice financier de l'organisme  à

Dernier exercice audité  à

Chiffre d'affaires pour les trois derniers exercices  
(en commençant par le plus récent)

<input type="text" value="114454159"/>	<input type="text" value="108304121"/>	<input type="text" value="91160309"/>
--	--	---------------------------------------

Résultats des trois derniers exercices  
(en commençant par le plus récent)

(BENEFICE) + <input type="text" value="29621779"/>	<input type="text" value="18273258"/>	<input type="text" value="22828981"/>
(PERTE) - <input type="text"/>	<input type="text"/>	<input type="text"/>

Indiquer les principales règles financières et comptables en vigueur chez le participant (si les frais généraux s'appliquent sur d'autres catégories de coûts que les coûts de personnel, veuillez le mentionner)

Informations déjà fournies à la DG XII

OUI  → Proposition N°

Programme

(passer à la question suivante — page 7)

NON  (compléter)

**RÈGLES DE LA COMPTABILITE PUBLIQUE DE DROIT FRANCAIS**

- séparation de l'ordonnateur et du comptable
- engagement préalable obligatoire
- obligation du service fait ou de la livraison ou de la fourniture
- contrôle de la cour des comptes et de l'Inspection Générale des Finances

ATTENTION. Merci — de compléter ce formulaire avec soin en vue de son utilisation en LECTEUR OPTIQUE — Ne pas plier ni agraffer le formulaire — d'utiliser une machine à écrire réglée à 10 caractères/pouce





**Notes concernant la page 7:**

**Règles comptables :** les participants devront se référer notamment aux contrats types, au dossier d'information et aux notes dans les présentes instructions pour ce qui concerne le calcul des coûts de personnel et les frais généraux, les coûts non remboursables et les autres catégories de coûts directs.

La liste des **coûts non remboursables** figure à l'article 33 de l'annexe II du contrat type (contrat à coût réel). Sont exclus notamment le profit, les intérêts sur le capital investi et le rendement de ce capital ainsi que les frais de distribution, de marketing et de publicité visant à promouvoir des produits ou des activités commerciales.

Dans l'application de ces règles, il sera fait abstraction de coûts provisionnels; les coûts seront calculés à leur valeur d'origine (les coûts réactualisés, les réévaluations des immobilisations, les loyers et charges locatives estimés, etc. ne sont pas des coûts remboursables).

**Tarifs gouvernementaux de RDT :** les contrats types permettent aux participants de se référer, pour le calcul des coûts salariaux et des frais généraux, à des tarifs agréés par leur gouvernement, lorsque les principes d'établissement de ces tarifs n'entrent pas en conflit de façon significative avec les principes édictés par la Commission. Les participants qui ont défini des tarifs non concurrentiels pour leurs travaux de RDT à frais partagés avec le gouvernement de leur Etat-membre et qui souhaitent utiliser ces tarifs pour le projet pourront compléter cette partie du formulaire en opérant les ajustements nécessaires pour tenir compte des différences au niveau des coûts remboursables entre la Commission et leur Etat-membre. Les ajustements opérés sur les tarifs gouvernementaux devront être précisés. **TOUS LES AUTRES PARTICIPANTS DEVRONT COMPLETER L'ANNEXE I DU FORMULAIRE.**

Si les tarifs utilisés sont des tarifs agréés, la Commission devra avoir accès, si nécessaire, aux documents de travail des services officiels de contrôle des gouvernements des Etats-membres.

Les tarifs agréés par les gouvernements des Etats-membres s'entendent également des tarifs agréés par les régions exerçant des pouvoirs décentralisés, à savoir:

- BE : les 3 régions
- DE : les 11 Länder
- ES : les 2 régions autonomes (País Vasco; Cataluña)
- IT : les 5 Regioni a Statuto Speciale.



**Notes concernant la page 8 :**

**Catégories de personnel affectées au projet :** chaque catégorie doit être identifiée de façon claire et non ambiguë de façon à permettre à la Commission d'évaluer les efforts en personnel pour les besoins du projet, d'analyser les relevés des dépenses et d'effectuer des audits.

**Services gouvernementaux responsables de l'établissement des tarifs pour les travaux de RDT à frais partagés :** la Commission pourra contacter les services compétents à tout moment en cours d'exécution du projet et pendant la période où elle est en droit d'effectuer des audits.



**Note concernant la page 9 :**

**Des tarifs moyens** peuvent être utilisés lorsqu'ils reflètent correctement les coûts du personnel qui travaille sur le projet. Les tarifs moyens peuvent se référer à une seule catégorie de personnel, ou même à plusieurs catégories dès lors qu'ils constituent une moyenne correcte des différentes catégories de personnel affecté au projet.



PARTICIPANT  
NUMÉRO

RÉSERVÉ A LA COMMISSION

FR KK 201230

Les coûts de personnel seront-ils chargés au projet sur la base de :

Salaires réels

Salaires moyens

Autres

Indiquer la base de calcul, y compris la définition de la grille de rémunération utilisée aux fins de calcul des coûts:

Pourcentage estimé d'augmentation des coûts salariaux et des taux de frais généraux pour chaque année de recherche par rapport aux coûts et taux indiqués dans la page précédente :

Identique pour toutes les catégories  (compléter uniquement la ligne 01)

Différent selon les catégories  (compléter pour chaque catégorie)

Catégorie	Coûts salariaux					Frais généraux				
	1991	1992	19AA	19AA	19AA	1991	1992	19AA	19AA	19AA
01	0.04	0.04	<input type="text"/>	<input type="text"/>	<input type="text"/>	0	0	<input type="text"/>	<input type="text"/>	<input type="text"/>
02	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
04	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
05	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Pourcentage annuel moyen d'augmentation

Pourcentage annuel moyen d'augmentation

ATTENTION: Privilégier le remplissage en machine. Ne pas plier ni agraffer le formulaire.

**Notes concernant la page 10 :**

**Nombre d'heures/mois :** les participants utilisant la formule du coût marginal pourront fournir les renseignements en mois et se référer à des coûts salariaux mensuels. Les autres participants, qui utilisent la formule du coût global, devront raisonner en heures et se référer à des coûts salariaux horaires.

**Coûts salariaux et taux de frais généraux :** pour les participants dont la base de calcul des coûts est le coût global et qui souhaitent utiliser des tarifs gouvernementaux éventuellement réajustés, les coûts salariaux doivent être ceux mentionnés en page 8 (augmentés si nécessaire des pourcentages indiqués en page 9 pour toute la durée du projet) et les taux de frais généraux sont les taux révisés mentionnés en page 8 (également augmentés si nécessaire).

Pour tous les autres participants, qui doivent compléter l'annexe I, les coûts salariaux devront être ceux mentionnés en page I-3 (augmentés si nécessaire des pourcentages indiqués sur la même page). Les taux de frais généraux devront être ceux mentionnés en page I-9 pour les participants utilisant le coût global comme base de calcul; pour ceux utilisant le coût marginal, le taux de frais généraux ne pourra excéder 20% des coûts directs.

Pour les participants utilisant le coût marginal et se référant à des coûts salariaux mensuels, les tarifs mensuels devront être calculés à partir des salaires annuels mentionnés en page I-3 (augmentés si nécessaire des pourcentages indiqués dans cette même page) — voir la note concernant la page I-3.

PARTICIPANT  
NUMÉRO **02**

RÉSERVÉ À LA COMMISSION

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**2D — VENTILATION DES COÛTS**

Date à laquelle les tarifs utilisés sont modifiés chaque année

**2D(1) — COÛTS DE PERSONNEL ET FRAIS GÉNÉRAUX**

(à compléter pour chaque catégorie indiquée en page 8 ou en page I-1 de l'annexe I, si celle-ci a été complétée)

Année	Nombre d'heures/mois	Coût salarial	Total	Frais généraux	Total
-------	----------------------	---------------	-------	----------------	-------

Base de calcul:

heures  mois

Catégorie 01

1991	470	59.82	28115	0.3484	9795
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sous-total			28115	Sous-total	9795

Catégorie 02

1991	318	89.35	28413	0.3484	9900
1992	936	89.35	83632	0.3484	29137
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sous-total			112045	Sous-total	39037

Catégorie 03

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Sous-total			<input type="text"/>	Sous-total	<input type="text"/>

ATTENTION: Prière de compléter ce formulaire avec soin en vue de son utilisation en LECTEUR OPTIQUE. Ne pas plier ni agraffer le formulaire. Ne pas utiliser une machine à écrire réglée à 10 caractères/pouce.





**Notes concernant la page 12:**

**Déplacements:** l'attention des participants est attirée sur le fait que les déplacements en dehors de l'Europe Occidentale au cours du projet nécessitent l'accord préalable de la Commission. Le fait de prévoir de tels déplacements dans l'estimation des coûts du projet ne constitue pas en soi une demande d'accord préalable. Pour les projets portant sur des travaux devant nécessairement se dérouler dans des Etats en dehors de l'Europe Occidentale, le contrat contiendra les clauses appropriées pour régler la procédure d'autorisation.

**Matériel durable et consommable:** les articles 27 et 28 de l'annexe II du contrat type (contrat à coût réel) définissent ces deux catégories de coûts. Le matériel durable doit être amorti sur une base linéaire (3 ans s'il s'agit de matériel informatique d'une valeur inférieure à 10 000 ECU, 5 ans pour les autres matériels). Le matériel acquis uniquement pour les besoins du projet pourra être considéré comme affecté à 100% à celui-ci, même s'il n'est pas utilisé de façon permanente.



**Notes concernant la page 13:**

**Sous-contractants principaux** (voir ci-dessus les catégories de participants).  
Les sous-contractants principaux doivent compléter le tableau de ventilation  
estimée des coûts en page 4 du formulaire.

**Entreprises liées:** deux organismes sont considérés comme entreprises liées  
lorsqu'il existe entre eux des liens de contrôle de quelque nature que ce soit (y  
compris lorsque leur contrôle ultime est assuré par le même organisme tiers).



PARTICIPANT  
NUMÉRO 02

RÉSERVÉ À LA COMMISSION

FR MM 201230

Sous-traitance

Sous-contrats principaux

Participant N°   Participant N°   Participant N°

Nom	Code pays	Travaux/Service	Montant	Sous-total
Autres sous-contrats				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Services				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Total</b>				<input type="text"/>

Les sous-contractants/fournisseurs sont-ils liés au contractant? NON  OUI

Si OUI, préciser le nom et la nature des liens

Coûts informatiques

Description	Montant
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b>	

Autres coûts

Description	Montant
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b>	

ATTENTION. Prière de compléter ce formulaire avec soin en vue de son utilisation en LECTURE OPTIQUE. Ne pas plier ni agraffer le formulaire. d'utiliser une machine à écrire réglée à 10 caractères/pouce.



PARTICIPANT  
NUMÉRO 02

FR NN 201230

RÉSERVÉ À LA COMMISSION

A-t-il été nécessaire de compléter :

ANNEXE I NON  OUI  (joindre l'annexe dûment complétée)ANNEXE III NON  OUI  (joindre l'annexe dûment complétée)

Nous certifions que les renseignements fournis dans la **partie 2** et dans les **annexes I et III**, si celles-ci ont été complétées, sont exacts et que les détails financiers sont conformes à la définition des dépenses remboursables figurant dans le contrat type de RDT (1.10.1988) et aux règles comptables définies par la Commission

(Responsable scientifique)

Nom: G. . TOUPANCE

Fonction: PROFESSOR

Date: 19900709

Signature:

(Responsable administratif)

Nom: D. . LAURENT

Fonction: PRESIDENT

Date: 19900709

Signature: 

**Note concernant la page I-1 :**

**Catégories de personnel affectées au projet.** Voir la note ci-dessus concernant la page 8.

PARTICIPANT  
NUMBER

03

(as specified on page 2  
of the original proposal  
or in Annex II if com-  
pleted)

FOR COMMISSION USE

EN	DD	101573							

## PART 2 — PARTICIPANT INFORMATION

(to be completed by each participating organisation specified on page 2)

THE COORDINATOR  CR  AC  SC  Linked to Contractor: (number specified on page 2 e.g. 01)  03

### 2A — ADMINISTRATIVE DETAILS AND COSTS

FULL LEGAL NAME  
OF ORGANISATION

UNIVERSITY OF PATRAS  
DEPARTMENT OF CHEMISTRY

Person to sign contract

name

PANARETOS

Christian name

IOANNIS

Title

ASSOCIATE PROFESSOR

Position

VICE RECTOR OF UNIVERSITY OF PATRAS

Name of person responsible  
for the negotiation of the contract

SOTIRIOS GLAVAS

Position

ASSISTANT PROFESSOR

Address, telephone, telex, telefax, etc.:

— as registered or principal office specified in original proposal

— as establishment, department, etc. specified in original proposal

— if different, or some details differ, specify as appropriate:

Street: No.

Town:  Postal Code:  CEDEX:

Country:  Code:  Telephone:  Ext:

Telex:  Telefax:

Teletext:  E-Mail Type:

Have the draft terms of any associated contract been agreed?

N/A

YES

NO

Date expected to be agreed

#### Notes concerning page 4

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

PARTICIPANT NUMBER

FOR COMMISSION USE

EN EE 101573

National currency (specify)

Currency code

ESTIMATED BREAKDOWN OF COSTS

By category for the project

**Direct costs**

Labour

Travel and subsistence

Durable equipment

Consumables

External assistance

Computing

Other

**Indirect costs**

Overheads

TOTAL

By year for the project

1991

1992

1993

1994

1995

TOTAL

TOTAL ECU

Basis of costs:

full

marginal

For universities and higher education establishments only, are full costs being used for all EC RTD projects?

YES

NO

Specify which programmes:

Can the participant recover by any means VAT to be paid in connection with carrying out the project?

YES

NO

2B — FINANCING OF PROJECT

(National currency)

(ECU)

Financial contribution requested from EC:

Sources for costs not sought from EC:

Participants:

Third parties:

State/Public:

Private:

Funding confirmed

Date last decision expected

YES NO

Total amount of funding

If a third party financing the costs is situated outside the EC, or is owned or controlled by a third party situated outside the EC, specify:

Name

Amount of funding

Currency code

Country

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.









#### Notes concerning page 7

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

BE = the 3 Regions

DE = the 11 Länder

ES = the 2 autonomous regions (Pais Vasco; Cataluña)

IT = the 5 Regioni a Statuto Speciale.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	FF	101573	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have the cost principles specified by the EC been applied in calculating the cost for the project (e.g. no profit; no notional costs; use of historic costs and not current costs; no imputed or deemed interest; exclusion of non allowable costs, etc.):

YES  NO

If NO, please — identify the principles not applied, — specify the impact of not applying these principles, and — justify the reasons for not applying them.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Have the above financial, costing and accounting principles been used for other financial support received from another EC Directorate General?

NO  YES  → Specify DG

Has the structure of the labour or overhead rates used for the cost of this project also been used and approved for financial support received from another EC Directorate General?

Labour NO  YES  → Specify most recent (DG, approval date and reference)

Overheads NO  YES  → Specify most recent (DG, approval date and reference)

**Government rates**

Does the participant carry out cost-shared RTD work with the government of its Member State? YES  NO  → (Complete Annex I and proceed to Part 2D)

Has the government approved labour and overhead rates excluding profit for carrying out such RTD work? YES  NO  → (Complete Annex I and proceed to Part 2D)

Are the principles for the rates to be used by the participant for the EC the same as those for such cost-shared RTD work carried out with the government (after any appropriate adjustments specified on next page):

YES  → (Complete details on pages 8 and 9)  
NO  → (Complete Annex I and proceed to part 2D)

#### **Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

PARTICIPANT NUMBER 03

FOR COMMISSION USE									
EN	V1	101573							

Grades of labour to be charged to the project	Latest approved gov. hourly labour rate	Latest approved gov. hourly overhead rate	Revised hourly overhead rate excluding non allowed EC costs
01 SCIENTIST			
02			
03			
04			
05			
06			

Are these government rates used for all cost-shared RTD work with the government?

YES  NO  Provide details of any lower rates:

Details of adjustments to government hourly overhead rate to arrive at revised rates: (indicate deductions by -; additions by +).

Date of latest approved government labour and overhead rates: 19YYMMDD

Date of last audit carried out by the government of labour and overhead rates: 19YYMMDD

Details of the official responsible for verifying the financial, costing and accounting principles for the government:

Name: \_\_\_\_\_

Name of government department: \_\_\_\_\_

Street: No. \_\_\_\_\_

Town: \_\_\_\_\_ Postal Code: \_\_\_\_\_ CEDEX: \_\_\_\_\_

Country: \_\_\_\_\_ Code: \_\_\_\_\_ Telephone: \_\_\_\_\_ Ext: \_\_\_\_\_

Telex: \_\_\_\_\_ Telefax: \_\_\_\_\_

Teletext: \_\_\_\_\_ E-Mail Type: \_\_\_\_\_

#### **Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.



PARTICIPANT NUMBER

FOR COMMISSION USE										
EN	KK	101573	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Will the labour costs be charged to the project on the basis of:

Actual salaries       Average salaries       Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

ACTUAL SALARIES ARE BASED ON DIRECTIVE OF THE RESEARCH COMMITTEE OF THE UNIVERSITY OF PATRAS. THIS DIRECTIVE IS BASED ON THE SALARY OF A LECTURER OF THE UNIVERSITIES IN GREECE SET BY THE GOVERNMENT.

Percentage increase in estimated labour and overhead rates from rates on previous page for each year of project:

Same for all grades  (only complete 01)  
 Different for all grades  (complete for each grade)

Category	Labour					Overheads				
	19YY	19YY	19YY	19YY	19YY	19YY	19YY	19YY	19YY	19YY
01	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
02	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
03	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
04	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
05	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
06	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Average annual % increase       Average annual % increase

#### **Notes concerning page 10**

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.





PARTICIPANT NUMBER 03

FOR COMMISSION USE					
EN	X2	101573			

2D(1) — (continuation)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
<b>Category 04</b>					
19YY					
19YY					
19YY					
19YY					
19YY					
		Subtotal		Subtotal	
<b>Category 05</b>					
		Subtotal		Subtotal	
<b>Category 06</b>					
		Subtotal		Subtotal	
Total (01 to 06)			3000000	Total (01 to 06)	
			TOTAL		3000000

## Notes concerning page 12

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.

PARTICIPANT  
NUMBER 03

FOR COMMISSION USE									
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2D(2) — OTHER DIRECT COSTS

Travel and Subsistence  
(include appropriate allowances for travel to Brussels)

	Amount	Subtotal
— Within Western Europe		
BRUSSELS	150000	
LILLESTRØM OR ROME	150000	
		300000
— Outside Western Europe		
Conferences/Seminars		
Total		300000

Durable Equipment

Description	Date of Purchase	Cost	% allo- cation to Project	Amount to be charged to Project
GAS CHROMATOGRAPH	19910100	3500000	100	1400000
	19YYMMDD			
	19YYMMDD			
	19YYMMDD			
	19YYMMDD			
Total				1400000

Consumables

Category	Amount
GASES	1400000
CHEMICALS	400000
CHROMATOGRAPHY SUPPLIES	880000
VARIOUS	300000
Total	2980000

### **Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).



PARTICIPANT NUMBER 03

FOR COMMISSION USE										
EN	MM	101573			MM					

External Assistance

Major subcontracts

Participant No.

Participant No.

Participant No.

Name	Country Code	Work/Service	Amount	Subtotal
<b>Minor subcontracts</b>				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Services</b>				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
				<input type="text"/>
<b>Total</b>				<input type="text"/>

Is any subcontractor/supplier affiliated to the contractor?

NO  YES

If YES, specify name and nature of affiliation

Computing

Description	Amount
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b>	
	<input type="text"/>

Other

Description	Amount
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b>	
	<input type="text"/>



PARTICIPANT  
NUMBER 03

FOR COMMISSION USE  
EN NN 101573   NN

Has it been necessary to complete

ANNEX I NO  YES  (Join the Annex duly completed)  
ANNEX III NO  YES  (Join the Annex duly completed)

We certify that the information in Part 2, and Annexes I and III if completed, is correct and true and that the financial information complies with the definition of allowable costs in the model RTD contract (1.10.1988) and cost principles specified by the EC


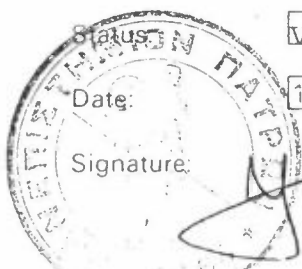
(authorised Scientific Official)

Name:   SOTIRIOS GLAVAS  
Status:  ASSISTANT PROFESSOR  
Date:  9900625

Signature: Sotirios Glavas

(authorised Administrative Official)

Name:   IOANNIS PANARETOS  
Status:  VICE RECTOR OF UNIVERSITY  
Date:  9900625

Signature:   


**Notes concerning page I-1**

**Grades of labour** to be charged to the project. See notes concerning page 8.

PARTICIPANT NUMBER

03

(as specified on page 2 of the original proposal or in Annex II if completed)

FOR COMMISSION USE										
EN	00	101573			00					

ANNEX I —

DETAILED LABOUR AND OVERHEAD CALCULATIONS

ONLY TO BE COMPLETED IF APPROVED RTD RATES NOT USED (see instructions to participants)

LABOUR

Salaries

Information previously specified to DG XII

YES  Proposal No. SC1 0171C

Programme

NO  (complete)

(Proceed to next question — grades of labour)

Will the labour costs be charged to the project on the basis on:

Actual salaries  Average salaries  Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Grades of labour

Grades of labour to be charged to the project

Same for all grades

Different for some or all grades

Date of salary increases

Percentage added to gross salary for social and pension contributions

(only complete 01)

(complete for each grade)

Grade	Description	Date of salary increases	Percentage added to gross salary for social and pension contributions
01	SCIENTIST	19920101	18
02			
03			
04			
05			
06			

**Notes concerning page I-2**

**Workable (productive) days and hours:** the number of workable (productive) days acceptable to the Commission is normally no less than 210 days per person year. The number of workable (productive) days should be multiplied by the average number of working hours per day to arrive at the total workable (productive) hours per person year.

PARTICIPANT  
NUMBER 03

FOR COMMISSION USE									
EN	PP	101573			PP				

— Number of hours

Information previously specified to DG XII

YES  → Proposal No.

Programme

(Proceed to next question — annual salaries)

NO  (complete) ↓

For each grade of labour on page I-1, specify the number of hours per year used for costing purposes:

Is the number the same for all categories?

YES  (only complete 01)

NO  (complete for each grade)

	01	02	03	04	05	06
Maximum annual working days	264					
Less deductions for:						
— Statutory holidays	8					
— Annual holidays	20					
— Illness						
— Other (specify and justify below)						
<input type="text"/>						
<input type="text"/>						
<input type="text"/>						
Total workable (productive) days	236					
Equivalent total workable (productive) hours	1888					

Justification for other deductions in above calculation

### **Notes concerning page I-3**

**Hourly costs:** those participants working on the basis of marginal costs and using monthly labour cost rates should complete only part of this question. The percentage increases (by reference to annual salaries) for the subsequent years of the project should be specified.





#### Notes concerning page I-4

**Overhead calculation:** the overheads are generally intended to cover indirect costs (excluding those items chargeable separately as direct costs) necessary to employ, manage, accommodate and support the labour directly performing the work of the project. The overhead costs should primarily relate to the infrastructure and support services of the cost centre (e.g. division, department, etc.) where the project is to be carried out, and other essential on-site services for the cost centre to carry out its RTD activities. A reasonable share of those main cost categories specified on page I-4 will be allowable provided that the principles used for the apportionment and allocation of overheads specified on page I-7 are reasonable. Details of any assumptions used in the overhead calculation must be specified on page I-7.

Costs of in-house research studies, funded entirely by the participant, may be included in the overhead calculation if it is demonstrated that the results of the studies benefit the project or related Commission projects. The **maximum** acceptable rate for in-house studies is 10% of the labour cost rate and overhead rate.

Costs relating to the leasing of fixed assets (buildings and capital equipment) are allowable, but any interest or financial charges must be excluded. Leasing costs will not be accepted where the leasing arrangement has the effect of unnecessarily increasing the charge made to the project (for example, due to costs being charged over a shorter lifespan than would normally be the case if the asset were purchased and depreciated in the normal way).

Overheads should be recovered preferably on a per head basis irrespective of grade or salary, but other methods may be used if they provide fair and reasonable results.

Overheads for universities and higher education establishments operating on the full cost basis should relate to the research activities only (all expenditure relating to teaching, students, and non research activities must be excluded). **SUCH ORGANISATIONS OPERATING ON THE MARGINAL COST BASIS SHOULD NOT COMPLETE THIS PART OF THE FORM;** in this case overheads may be charged at a fixed percentage, corresponding to a maximum of 20% of all cost categories except associated contracts and VAT.

PARTICIPANT NUMBER

04

(as specified on page 2 of the original proposal or in Annex II if completed)

FOR COMMISSION USE									
EN	DD	101574							

**PART 2 — PARTICIPANT INFORMATION**

(to be completed by each participating organisation specified on page 2)

THE COORDINATOR  CR  AC  SC  Linked to Contractor:  (number specified on page 2 e.g. 01)

**2A — ADMINISTRATIVE DETAILS AND COSTS**

FULL LEGAL NAME OF ORGANISATION: NETHERLANDS ORGANIZATION FOR APPLIED SCIENTIFIC RESEARCH TNO DIVISION OF TECHNOLOGY FOR SOCIETY

Person to sign contract

Surname: VAN DER VEEK

Christian name: A. P. M.

Title: DR

Position: DIRECTOR BUSINESS POLICY AND MARKETING

Name of person responsible for the negotiation of the contract: DR. R. GUICHERIT

Position: HEAD DEPARTMENT OF ENV. CHEMISTRY

Address, telephone, telex, telefax, etc.:

— as registered or principal office specified in original proposal

— as establishment, department, etc. specified in original proposal

— if different, or some details differ, specify as appropriate:

Street: No. 97 SCHOEMAKERSTRAAT

Town: DELFT Postal Code: 2628 VK CEDEX:

Country: NETHERLANDS Code: NL Telephone: 3115696900 Ext:

Telex: 38071 zptno nl Telefax: 3115616812

Teletext:  E-Mail Type:

Have the draft terms of any associated contract been agreed?

N/A  YES  NO

Date expected to be agreed: 19YYMMDD

ATTENTION: Please use typewriter set at 10 characters/inch — Do not fold or staple the form

#### Notes concerning page 4

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	EE	101574	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

National currency (specify)

Currency code

ESTIMATED BREAKDOWN OF COSTS

By category for the project

By year for the project

<b>Direct costs</b>		
Labour	<input type="text" value="176600"/>	<input type="text" value="1991"/> <input type="text" value="100240"/>
Travel and subsistence	<input type="text" value="11000"/>	<input type="text" value="1992"/> <input type="text" value="111360"/>
Durable equipment	<input type="text"/>	<input type="text" value="199Y"/> <input type="text"/>
Consumables	<input type="text" value="19000"/>	<input type="text" value="199Y"/> <input type="text"/>
External assistance	<input type="text"/>	<input type="text" value="199Y"/> <input type="text"/>
Computing	<input type="text" value="5000"/>	
Other	<input type="text"/>	
<b>Indirect costs</b>		
Overheads	<input type="text"/>	
<b>TOTAL</b>	<input type="text" value="211600"/>	<b>TOTAL</b> <input type="text" value="211600"/>

TOTAL ECU

Basis of costs: full  marginal

For universities and higher education establishments only, are full costs being used for all EC RTD projects? YES  NO

Specify which programmes:

Can the participant recover by any means VAT to be paid in connection with carrying out the project? YES  NO

2B — FINANCING OF PROJECT

Financial contribution requested from EC: (National currency)  (ECU)

Sources for costs not sought from EC:

Participants:

Third parties: State/Public:  Private:

Funding confirmed	Date last decision expected
YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	<input type="text" value="19YYNMDD"/>

Total amount of funding

If a third party financing the costs is situated outside the EC, or is owned or controlled by a third party situated outside the EC, specify:

Name	Amount of funding	Currency code	Country
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ATTENTION: Please complete this form accurately; it will be used for OPTICAL READING use typewriter set at 10 characters/inch — Do not fold or staple the form

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.

PARTICIPANT NUMBER 04

FOR COMMISSION USE									
EN	Y1	101574							

2C — MAJOR FINANCIAL, COSTING AND ACCOUNTING PRINCIPLES OF PARTICIPATING ORGANISATION AND RTD RATES

Financial year of organisation  to

Last audited financial year  to

Turnover during the last three financial years (commencing with most recent)

<input type="text"/>	<input type="text"/>	<input type="text"/>
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Results of the last three financial years (commencing with most recent)

(PROFIT) +	<input type="text"/>	<input type="text"/>	<input type="text"/>
(LOSS) -	<input type="text"/>	<input type="text"/>	<input type="text"/>

Specify the major financial, costing and accounting principles adopted and applied by the participant (if overheads are recovered on cost categories other than labour this should be identified)

Information previously specified to DG XII

YES  → Proposal No.

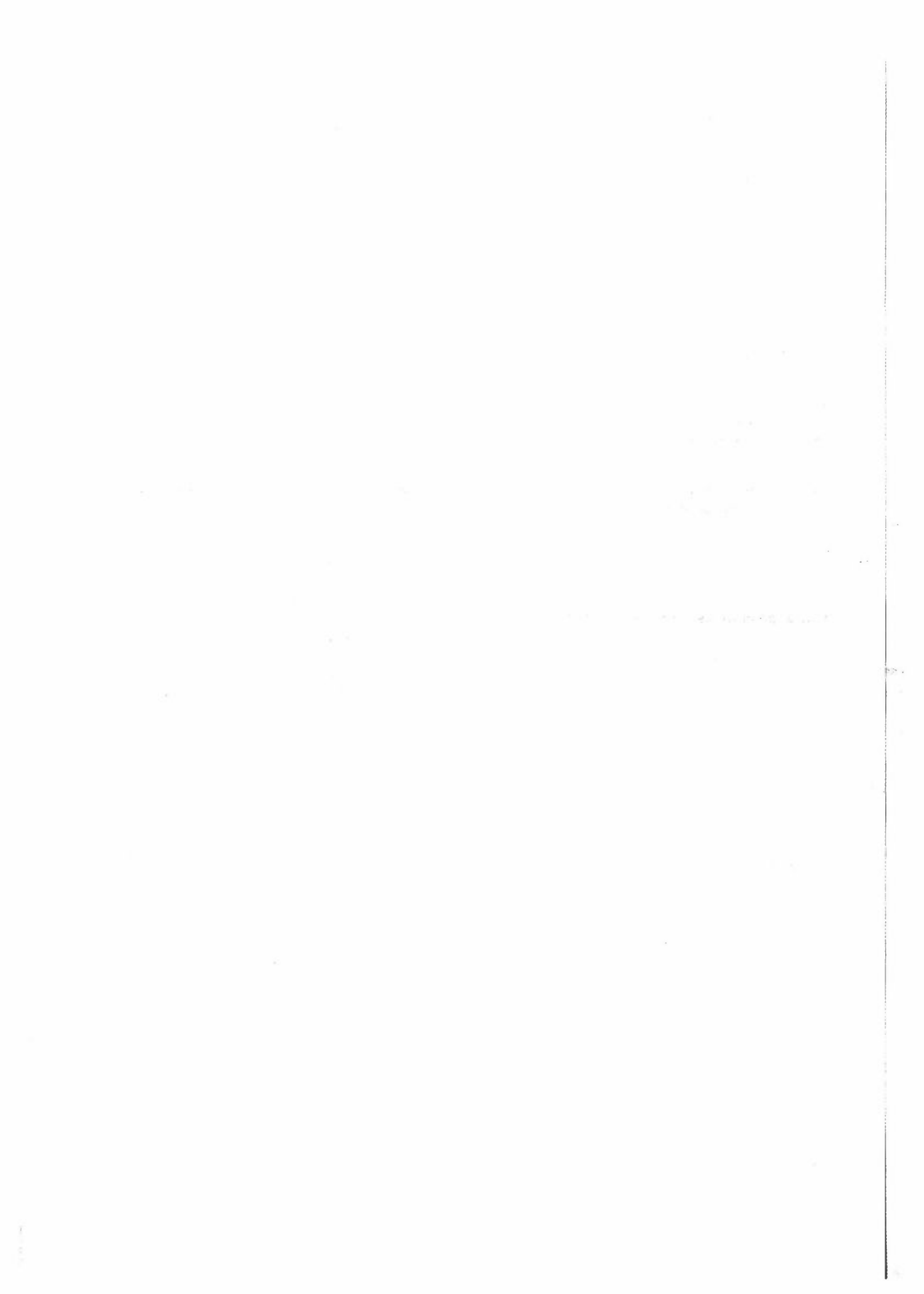
Programme

(Proceed to next question - page 7)

NO  ↓ (complete)

ATTENTION: Please complete this form accurately: it will be used for OFFICIAL READING use typewriter set at 10 characters/inch -- Do not fold or staple the form

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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PARTICIPANT NUMBER 04

FOR COMMISSION USE									
EN	Y2	101574							

2C — (continuation)

Page ..... of .....

Specify the major financial, costing and accounting principles adopted and applied by the participant:

ATTENTION: Please — complete this form accurately, it will be used for V. P. O. — use typewriter set at 10 characters/inch — Do not fold or staple the form

--	--	--	--	--	--	--	--	--	--

#### Notes concerning page 7

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

BE = the 3 Regions

DE = the 11 Länder

ES = the 2 autonomous regions (Pais Vasco; Cataluña)

IT = the 5 Regioni a Statuto Speciale.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	FF	101574	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Have the cost principles specified by the EC been applied in calculating the cost for the project (e.g. no profit; no notional costs; use of historic costs and not current costs; no imputed or deemed interest; exclusion of non allowable costs, etc.):

YES  NO

If NO, please — identify the principles not applied,  
 — specify the impact of not applying these principles, and  
 — justify the reasons for not applying them.

Have the above financial, costing and accounting principles been used for other financial support received from another EC Directorate General?

NO  YES  → Specify DG

Has the structure of the labour or overhead rates used for the cost of this project also been used and approved for financial support received from another EC Directorate General?

Labour	NO <input type="checkbox"/>	YES <input checked="" type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text" value="FRAMEWORK AGREEMENT 1986"/>
				<input type="text" value="DATED 04021986 DG XII"/>
Overheads	NO <input type="checkbox"/>	YES <input checked="" type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text" value="FRAMEWORK AGREEMENT 1986"/>
				<input type="text" value="DATED 04021986 DG XII"/>

**Government rates**

Does the participant carry out cost-shared RTD work with the government of its Member State?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Has the government approved labour and overhead rates excluding profit for carrying out such RTD work?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Are the principles for the rates to be used by the participant for the EC the same as those for such cost-shared RTD work carried out with the government (after any appropriate adjustments specified on next page):

YES  → (Complete details on pages 8 and 9)  
 NO  → (Complete Annex I and proceed to part 2D)

Complete this form accurately, it will be used to calculate the amount of the grant. Do not fold or staple the form. Use typewriter set at 10 characters/inch.

PT210:

**Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	V1	101574	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Grades of labour to be charged to the project

		1990 Latest approved govt. hourly labour rate	Latest approved govt. hourly overhead rate	Revised hourly overhead rate excluding non allowed EC costs
01	A	INCL ; OVERHEAD 88	<input type="text"/>	<input type="text"/>
02	B	114	<input type="text"/>	<input type="text"/>
03	C	142	<input type="text"/>	<input type="text"/>
04	D	190	<input type="text"/>	<input type="text"/>
05	E	238	<input type="text"/>	<input type="text"/>
06	F	312	<input type="text"/>	<input type="text"/>

Are these government rates used for all cost-shared RTD work with the government?

YES  NO  Provide details of any lower rates:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Details of adjustments to government hourly overhead rate to arrive at revised rates:  
(indicate deductions by -; additions by +).

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Date of latest approved government labour and overhead rates:

Date of last audit carried out by the government of labour and overhead rates:

Details of the official responsible for verifying the financial, costing and accounting principles for the government:

Name

Name of government department

Street: No.

Town:  Postal Code:  CEDEX:

Country:  Code:  Telephone:  Ext:

Telex:  Telefax:

Teletext:  E-Mail Type:

ATTENTION: Please complete this form accurately. It will be used for official records. Do not fold or staple the form. Use typewriter set at 10 characters/inch.

**Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	KK	101574	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Will the labour costs be charged to the project on the basis of:

Actual salaries  Average salaries  Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

FRAMEWORK AGREEMENT DG XII DATED 19860402

ATTENTION: Please — complete this form accurately; it will be used for OPTICAL READING — use typewriter set at 10 characters/inch — Do not fold or staple the form

Percentage increase in estimated labour and overhead rates from rates on previous page for each year of project:

Same for all grades  (only complete 01)

Different for all grades  (complete for each grade)

Category	Labour					Overheads				
	1991	1992	19YY	19YY	19YY	1991	1992	19YY	19YY	19YY
01	2	2				2	2 /			
02										
03										
04										
05										
06										

Average annual % increase

Average annual % increase

**Notes concerning page 10**

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.



PARTICIPANT NUMBER **04**

FOR COMMISSION USE					
EN	X1	101574	□	□	□ □ □ □ □ □

**2D — BREAKDOWN OF COSTS**

Date of annual change for rates to be used

**2D(1) — LABOUR COSTS AND OVERHEADS**

(to be completed for each category specified on page 8 or page I-1 Annex I, if completed)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
Basis used:					
Hours <input checked="" type="checkbox"/> Months <input type="checkbox"/>					
Category 01					
1991	□	□	□	□	□
1992	□	□	□	□	□
1993	□	□	□	□	□
1994	□	□	□	□	□
1995	□	□	□	□	□
		Subtotal	□	Subtotal	□
Category 02					
1991	100	116	11600	□	□
1992	70	118	8260	□	□
1993	□	□	□	□	□
1994	□	□	□	□	□
1995	□	□	□	□	□
		Subtotal	19860	Subtotal	□
Category 03					
1991	250	145	36250	□	□
1992	150	148	22200	□	□
1993	□	□	□	□	□
1994	□	□	□	□	□
1995	□	□	□	□	□
		Subtotal	58450	Subtotal	□

ATTENTION: Please — complete this form accurately, it will be used for OFFICIAL READING — use typewriter set at 10 characters/inch — Do not fold or staple the form



#### **Notes concerning page 12**

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.



**Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).

PARTICIPANT NUMBER

FOR COMMISSION USE					
EN	MM	101574	<input type="text"/>	MM	<input type="text"/>

External Assistance

Major subcontracts

Participant No.

Participant No.

Participant No.

Name	Country Code	Work/Service	Amount	Subtotal
Minor subcontracts				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Services

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
				<input type="text"/>
Total				<input type="text"/>

Is any subcontractor/supplier affiliated to the contractor?

NO  YES

If YES, specify name and nature of affiliation

Computing

Description	Amount
DATA ACQUISITION, SUMMARY STATISTICS	5000
COMPUTER MODELLING	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
Total	
<input type="text" value="5000"/>	

Other

Description	Amount
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
Total	
<input type="text"/>	

ATTENTION: Please use typewriter set at 10 characters/inch — Do not fold or staple the form

THE UNIVERSITY OF CHICAGO  
DEPARTMENT OF CHEMISTRY  
5708 SOUTH CAMPUS DRIVE  
CHICAGO, ILLINOIS 60637

PARTICIPANT NUMBER

FOR COMMISSION USE									
EN	NN	101574	<input type="checkbox"/>	<input type="checkbox"/>	NN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Has it been necessary to complete

ANNEX I NO  YES  (Join the Annex duly completed)

ANNEX III NO  YES  (Join the Annex duly completed)

We certify that the information in Part 2, and Annexes I and III if completed, is correct and true and that the financial information complies with the definition of allowable costs in the model RTD contract (1.10.1988) and cost principles specified by the EC

(authorised Scientific Official)

Name: DR. R. Guicherit

Status: HEAD DEPARTMENT OF ENV. CHEMISTRY

Date: 19900710


Signature: 

(authorised Administrative Official)

Name: DR. J. WEMMENHOVE

Status: HEAD FINANCIAL DEPARTMENT

Date: 19900710

Signature: *c/a* 

ATTENTION: Please — complete this form accurately, it will be used for OFFICIAL RECORDING — use typewriter set at 10 characters/inch — Do not fold or staple the form



**Notes concerning page I-1**

**Grades of labour to be charged to the project. See notes concerning page 8.**

PARTICIPANT NUMBER

05

(as specified on page 2 of the original proposal or in Annex II if completed)

FOR COMMISSION USE									
EN	DD	101575							

PART 2 — PARTICIPANT INFORMATION

(to be completed by each participating organisation specified on page 2)

THE COORDINATOR  CR  AC  SC  Linked to Contractor:   
 (number specified on page 2 e.g. 01)

2A — ADMINISTRATIVE DETAILS AND COSTS

FULL LEGAL NAME OF ORGANISATION

Person to sign contract

Surname

Christian name

Title

Position

Name of person responsible for the negotiation of the contract

Position

Address, telephone, telex, telefax, etc.:

- as registered or principal office specified in original proposal
- as establishment, department, etc. specified in original proposal
- if different, or some details differ, specify as appropriate:

Street: No.

Town:  Postal Code:  CEDEX:

Country:  Code:  Telephone:  Ext:

Telex:  Telefax:

Teletext:  E-Mail Type:

Have the draft terms of any associated contract been agreed?

N/A  YES  NO

Date expected to be agreed

ATTENTION: Please complete this form accurately, it will be used for official invoicing. Do not fold or staple the form use typewriter set at 10 characters/inch

#### **Notes concerning page 4**

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

PARTICIPANT NUMBER 05

FOR COMMISSION USE

EN EE 101575

National currency (specify) DEUTSCHE MARK Currency code DEM

ESTIMATED BREAKDOWN OF COSTS

By category for the project

**Direct costs**

Labour 111928

Travel and subsistence 5500

Durable equipment 120000

Consumables 15000

External assistance

Computing

Other

**Indirect costs**

Overheads 60772

**TOTAL 313200**

By year for the project

1991 216523

1992 96677

1993

1994

1995

**TOTAL 313200**

TOTAL ECU 152039

Basis of costs:

full  marginal

For universities and higher education establishments only, are full costs being used for all EC RTD projects?

YES  NO

Specify which programmes:

Can the participant recover by any means VAT to be paid in connection with carrying out the project?

YES  NO

2B — FINANCING OF PROJECT

Financial contribution requested from EC: (National currency) 144200 (ECU) 70000

Sources for costs not sought from EC:

Participants:

Third parties: State/Public:  Private:

Total amount of funding 169000

Funding confirmed YES  NO  Date last decision expected 19900831

If a third party financing the costs is situated outside the EC, or is owned or controlled by a third party situated outside the EC, specify:

Name	Amount of funding	Currency code	Country

ATTENTION: Please — complete this form accurately, it will be used for — use typewriter set at 10 characters/inch — Do not fold or staple the form

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.

PARTICIPANT NUMBER 05

FOR COMMISSION USE									
EN	Y1	101575							

2C — MAJOR FINANCIAL, COSTING AND ACCOUNTING PRINCIPLES OF PARTICIPATING ORGANISATION AND RTD RATES

Financial year of organisation 0101 to 1231

Last audited financial year MMDD to MMDD 19YY

Turnover during the last three financial years (commencing with most recent)

570000	338224	330311
--------	--------	--------

Results of the last three financial years (commencing with most recent)

(PROFIT) + 9500	23669	3857
(LOSS) -		

Specify the major financial, costing and accounting principles adopted and applied by the participant (if overheads are recovered on cost categories other than labour this should be identified)

Information previously specified to DG XII

YES

Proposal No.

Programme

(Proceed to next question - page 7)

NO

(complete)

DOUBLE ACCOUNT SYSTEM

To complete this form accurately, it will be used for 10 minutes. Please use a typewriter set at 10 characters/inch. Do not fold or staple the form.







**Notes concerning page 7**

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. **ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.**

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

- BE = the 3 Regions
- DE = the 11 Länder
- ES = the 2 autonomous regions (Pais Vasco; Cataluña)
- IT = the 5 Regioni a Statuto Speciale.

PARTICIPANT NUMBER

DE

FOR COMMISSION USE									
EN	FF	101575							

Have the cost principles specified by the EC been applied in calculating the cost for the project (e.g. no profit; no notional costs; use of historic costs and not current costs; no imputed or deemed interest; exclusion of non allowable costs, etc.):

YES  NO

If NO, please — identify the principles not applied, — specify the impact of not applying these principles, and — justify the reasons for not applying them.


Have the above financial, costing and accounting principles been used for other financial support received from another EC Directorate General?

NO  YES  → Specify DG

Has the structure of the labour or overhead rates used for the cost of this project also been used and approved for financial support received from another EC Directorate General?

Labour	NO <input type="checkbox"/>	YES <input type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text"/>	<input type="text"/>
Overheads	NO <input type="checkbox"/>	YES <input type="checkbox"/> →	Specify most recent (DG, approval date and reference)	<input type="text"/>	<input type="text"/>

**Government rates**

Does the participant carry out cost-shared RTD work with the government of its Member State?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Has the government approved labour and overhead rates excluding profit for carrying out such RTD work?

YES  NO  → (Complete Annex I and proceed to Part 2D)

Are the principles for the rates to be used by the participant for the EC the same as those for such cost-shared RTD work carried out with the government (after any appropriate adjustments specified on next page):

YES  → (Complete details on pages 8 and 9)  
NO  → (Complete Annex I and proceed to part 2D)

ATTENTION: Please — complete this form accurately, it will be used for official purposes — use typewriter set at 10 characters/inch — Do not fold or staple the form

**Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

PARTICIPANT NUMBER 05

FOR COMMISSION USE									
EN	V1	101575							

Grades of labour to be charged to the project

Latest approved  
govt. hourly  
labour rate

Latest approved  
govt. hourly  
overhead rate

Revised hourly  
overhead rate  
excluding non  
allowed EC costs

01	SCIENTIST	79	43	43
02				
03				
04				
05				
06				

Are these government rates used for all cost-shared RTD work with the government?

YES  NO  Provide details of any lower rates:

--	--	--	--	--	--	--	--	--	--

Details of adjustments to government hourly overhead rate to arrive at revised rates:  
(indicate deductions by - ; additions by +).

--	--	--	--	--	--	--	--	--	--

Date of latest approved government labour and overhead rates:

19900830

Date of last audit carried out by the government of labour and overhead rates:

19YYMMDD

Details of the official responsible for verifying the financial, costing and accounting principles for the government:

Name

Name of government department UMWELTBUNDESAMT

Street: No. 1 BISMARCKPLATZ

Town: BERLIN Postal Code: 1000 CEDEX:

Country: FED.REP. OF GERMANY Code: DE Telephone: 3089030 Ext:

Telex: Telefax:

Teletext: E-Mail Type:

ATTENTION: please complete this form accurately; it will be used for OFFICIAL READING use typewriter set at 10 characters/inch - Do not fold or staple the form

#### **Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.

PARTICIPANT NUMBER 05

FOR COMMISSION USE									
EN	KK	101575							

Will the labour costs be charged to the project on the basis of:

Actual salaries       Average salaries       Another basis

Specify the basis for the calculation including a description of the ranges of any bands or grades to be used for costing purposes.

ATTENTION: Please complete this form accurately; it will be used for OFFICIAL RECORDING use typewriter set at 10 characters/inch --- Do not fold or staple the form

Percentage increase in estimated labour and overhead rates from rates on previous page for each year of project:

Same for all grades  (only complete 01)  
 Different for all grades  (complete for each grade)

Category	Labour					Overheads				
	1991	1992	19YY	19YY	19YY	1991	1992	19YY	19YY	19YY
01	4	4				4	4			
02										
03										
04										
05										
06										

Average annual % increase       Average annual % increase

**Notes concerning page 10**

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.

PARTICIPANT NUMBER 05

FOR COMMISSION USE					
EN	X1	101575	<input type="text"/>	<input type="text"/>	<input type="text"/>

**2D — BREAKDOWN OF COSTS**

Date of annual change for rates to be used 0101

**2D(1) — LABOUR COSTS AND OVERHEADS**

(to be completed for each category specified on page 8 or page I-1 Annex I, if completed)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
Basis used:					
Hours <input checked="" type="checkbox"/> Months <input type="checkbox"/>					
Category 01					
1991	706	79	55915	43	30358
1992	680	82	56013	45	30414
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			111928	Subtotal	60772
Category 02					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			<input type="text"/>	Subtotal	<input type="text"/>
Category 03					
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal			<input type="text"/>	Subtotal	<input type="text"/>

Do not fold or staple the form. Use a typewriter set at 10 characters/inch.





PARTICIPANT NUMBER

05

FOR COMMISSION USE										
EN	X2	101575								

2D(1) — (continuation)

Year	No. of hours/months	Labour cost rate	Total	Overhead rate	Total
Category 04					
		Subtotal		Subtotal	
Category 05					
		Subtotal		Subtotal	
Category 06					
		Subtotal		Subtotal	
Total (01 to 06)			111928	Total (01 to 06) 60772	
			TOTAL 172700		

Complete this form accurately; it will be used for OPTICAL READING. Do not fold or staple the form. Use typewriter set at 10 characters/inch.

#### **Notes concerning page 12**

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.



### **Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).

PARTICIPANT NUMBER

05

FOR COMMISSION USE									
EN	MM	101575			MM				

External Assistance

Major subcontracts

Participant No.

Participant No.

Participant No.

Name	Country Code	Work/Service	Amount	Subtotal
------	--------------	--------------	--------	----------

Minor subcontracts

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Services

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
				<b>Total</b> <input type="text"/>

Is any subcontractor/supplier affiliated to the contractor?

NO  YES

If YES, specify name and nature of affiliation

Computing

Description	Amount
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b> <input type="text"/>	

Other

Description	Amount
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<b>Total</b> <input type="text"/>	

ATTENTION: Please complete this form accurately. It will be used for the form use typewriter set at 10 characters/inch. Do not fold or staple the form



PARTICIPANT NUMBER 05

FOR COMMISSION USE										
EN	NN	101575			NN					

Has it been necessary to complete

ANNEX I NO  YES  (Join the Annex duly completed)

ANNEX III NO  YES  (Join the Annex duly completed)

ATTENTION: please complete this form accurately, it will be used for statistical purposes. Do not fold or staple the form. use typewriter set at 10 characters/inch

We certify that the information in Part 2, and Annexes I and III if completed, is correct and true and that the financial information complies with the definition of allowable costs in the model RTD contract (1.10.1988) and cost principles specified by the EC

(authorised Scientific Official)

Name: R. SCHMITT

Status: MANAGING DIRECTOR

Date: 19900709

Signature: [Handwritten Signature]

(authorised Administrative Official)

Name: R. SCHMITT

Status:

Date: 19900709

Signature: [Handwritten Signature]





PARTICIPANT  
NUMBER

06

(as specified on page 2  
of the original proposal  
or in Annex II if com-  
pleted)

EN DD 101571

## PART 2 — PARTICIPANT INFORMATION

(to be completed by each participating organisation specified on page 2)

X

### 2A — ADMINISTRATIVE DETAILS AND COSTS

SWEDISH ENVIRONMENTAL PROTECTION AGENCY  
ATMOSPHERIC RESEARCH DIVISION

DAHL

ANN

Mrs

HEAD OF THE ECONOMY DIVISION

P.P. OYOLA

HEAD OF THE DIVISION

STUDSVIK

NYKÖPING

611 82

SWEDEN

46 155 21163

64013 Studs s

46 155 63073

X

#### Notes concerning page 4

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

PARTICIPANT  
NUMBER 06

EN EE 101571

ESTIMATED BREAKDOWN OF COSTS

SWEDISH CROWNS

SEK

**Direct costs**

Labour 450 000 91

Travel and subsistence 100 000 92

Durable equipment 450 000

Consumables 100 000

External assistance

Computing 50 000

Other

**Indirect costs**

Overheads

TOTAL 1150 000

TOTAL 1150 000

TOTAL ECU

Basis of costs: x

2B — FINANCING OF PROJECT

320 000

40 000

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.

PARTICIPANT  
NUMBER 06

EN Y1 101571

**2C — MAJOR FINANCIAL, COSTING AND ACCOUNTING PRINCIPLES OF PARTICIPATING  
ORGANISATION AND RTD RATES**

Financial year of organisation 0107 0630

Last audited financial year 0107 0630 1990

Turnover during the last three financial years  
(commencing with most recent)

Results (PROFIT)  
of the last three financial years  
(commencing with most recent) (LOSS)

Specify the major financial, costing and accounting principles adopted and applied by the participant (if overheads are recovered on cost categories other than labour this should be identified)

YES

Proposal No.

Programme

Information previously specified to DG XII

THE SWEDISH ENVIRONMENTAL PROTECTION AGENCY IS A SWEDISH AUTHORITY UNDER  
THE GOVERNMENT WITH ALL KINDS OF NATIONAL AND INTERNATIONAL ENVIRONMENTAL  
TOPICS.



PARTICIPANT  
NUMBER 06

EN Y2 101571

FOR COMMISSION USE

2C — (continuation)

Page ..... of .....



#### Notes concerning page 7

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

BE = the 3 Regions

DE = the 11 Länder

ES = the 2 autonomous regions (Pais Vasco; Cataluña)

IT = the 5 Regioni a Statuto Speciale.

PARTICIPANT  
NUMBER 06

EN FF 101571

Have the cost principles specified by the EC been applied in calculating the cost for the project (e.g. no profit; no notional costs; use of historic costs and not current costs; no imputed or deemed interest; exclusion of non allowable costs, etc.):

YES  NO

If NO

X

X

X

Government rates

X

**Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

PARTICIPANT  
NUMBER 06

EN V1 101571

Grades of labour to be charged to the project

01

02

03

04

05

06

#### **Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.

PARTICIPANT  
NUMBER 06

EN KK 101571



- 01
- 02
- 03
- 04
- 05
- 06

Average annual % increase

Average annual % increase

## **Notes concerning page 10**

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.

PARTICIPANT  
NUMBER 06

EN X1 101571

2D — BREAKDOWN OF COSTS

Date of annual change for rates to be used

2D(1) — LABOUR COSTS AND OVERHEADS

(to be completed for each category specified on page 8 or page I-1 Annex I, if completed)

		X	OVERHEAD INCLUDED	
	SCIENTIST			
91	3		25000	75000
92	4		26250	105000

180000

	TECHNICIAN			
91	8		15500	125000
92	9		16110	145000

270000





PARTICIPANT  
NUMBER 06

EN X2 101571

2D(1) — (continuation)

Total (01 to 06) 450000

Total (01 to 06)

TOTAL 450000

### **Notes concerning page 12**

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.

PARTICIPANT  
NUMBER 06

EN W1 101571

2D(2) — OTHER DIRECT COSTS

Travel and Subsistence  
(include appropriate allowances for travel to Brussels)

VISIT TO PARTICIPANT LABORATORIES 80000

80000

PARTICIPATION IN A PAN SEMINARY 20000

20000

100000

Durable Equipment

PAN EQUIPMENT	9 102	250000	1.00
PAN CALIBRATION UNIT	9 102	150000	100
INTEGRATOR	9 102	50000	100

450000

Consumables

CALIBRATION GASES, ETC 100000

100000

### **Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).

PARTICIPANT  
NUMBER 06

EN MM 101571

MM

External Assistance

Major subcontracts

Participant No.

Participant No.

Participant No.

Computing

DATOR AND SOFTWARE

50000

50000

Other



PARTICIPANT  
NUMBER 06

EN NN 101571

NN

Has it been necessary to complete

ANNEX I NO YES X (Join the Annex duly completed)

ANNEX III NO X YES (Join the Annex duly completed)

We certify that the information in **Part 2**, and **Annexes I** and **III** if completed, is correct and true and that the financial information complies with the definition of allowable costs in the model RTD contract (1.10.1988) and cost principles specified by the EC

P P OYOLA  
HEAD OF THE DIVISION  
19900911

*P. P. Oyola*

R FERM  
HEAD OF THE DEPARTMENT  
19900911

*R FERM*  
*[Signature]*



**Notes concerning page I-1**

**Grades of labour** to be charged to the project. See notes concerning page 8.

PARTICIPANT  
NUMBER

06

(as specified on page 2  
of the original proposal  
or in Annex II if com-  
pleted)

EN 00 101571

00

ANNEX I —

DETAILED LABOUR AND OVERHEAD CALCULATIONS

ONLY TO BE COMPLETED  
IF APPROVED RTD RATES NOT USED  
(see instructions to participants)

LABOUR

— Salaries

YES

Proposal No.

Information previously specified to DG XII

Programme

X

X

THE MONTHLY RATES ARE BASED ON AVERAGE SALARIES, SOCIAL EXPENSES AND OVER-  
HEAD. TWO PERSONNEL CATEGORIES ARE USED; SCIENTISTS AND TECHNICIANS.

— Grades of labour

		X	X
01	SCIENTIST	9 10701	30
02	TECHNICIAN		
03			
04			
05			
06			

**Notes concerning page I-2**

**Workable (productive) days and hours:** the number of workable (productive) days acceptable to the Commission is normally no less than 210 days per person year. The number of workable (productive) days should be multiplied by the average number of working hours per day to arrive at the total workable (productive) hours per person year.

PARTICIPANT  
NUMBER 06

EN PP 101571

PP

— Number of hours

YES

Proposal No.

Information previously specified to DG XII

Programme

X

01	02	03	04	05	06
236					

10

6

220

1250

WORKABLE (PRODUCTIVE) HOURS ARE ADJUSTED FOR TIME CONSUMPTION FOR OTHER PURPOSES LIKE ADMINISTRATIVE OBLIGATIONS, PARTICIPATION IN SYMPOSIA FOR SCIENTISTS AND OTHER NOT CHARGEABLE ACTIVITIES.

**Notes concerning page I-3**

**Hourly costs:** those participants working on the basis of marginal costs and using monthly labour cost rates should complete only part of this question. The percentage increases (by reference to annual salaries) for the subsequent years of the project should be specified.

PARTICIPANT  
NUMBER 06

EN QQ 101571

QQ

— Annual salaries

For each grade of labour on page I-1 specify for the first year of the project

01	210000	+	90000	=	300000
02	130200	+	55800	=	186000
03		+		=	
04		+		=	
05		+		=	
06		+		=	

— ~~Hourly costs~~ MONTHLY COSTS

Hourly labour costs (excluding overheads) for each grade of labour on page I-1 for Last Audited Financial Year (LAFY), first year of project and percentage increase for subsequent years:

% increase same for all grades X (only complete 01)  
% increase different for all grades (complete for each grade)

		91	
01	25000	26250	5
02	15500	16275	5
03			
04			
05			
06			

Average annual  
% increase

#### Notes concerning page I-4

**Overhead calculation:** the overheads are generally intended to cover indirect costs (excluding those items chargeable separately as direct costs) necessary to employ, manage, accommodate and support the labour directly performing the work of the project. The overhead costs should primarily relate to the infrastructure and support services of the cost centre (e.g. division, department, etc.) where the project is to be carried out, and other essential on-site services for the cost centre to carry out its RTD activities. A reasonable share of those main cost categories specified on page I-4 will be allowable provided that the principles used for the apportionment and allocation of overheads specified on page I-7 are reasonable. Details of any assumptions used in the overhead calculation must be specified on page I-7.

Costs of in-house research studies, funded entirely by the participant, may be included in the overhead calculation if it is demonstrated that the results of the studies benefit the project or related Commission projects. The **maximum** acceptable rate for in-house studies is 10% of the labour cost rate and overhead rate.

Costs relating to the leasing of fixed assets (buildings and capital equipment) are allowable, but any interest or financial charges must be excluded. Leasing costs will not be accepted where the leasing arrangement has the effect of unnecessarily increasing the charge made to the project (for example, due to costs being charged over a shorter lifespan than would normally be the case if the asset were purchased and depreciated in the normal way).

Overheads should be recovered preferably on a per head basis irrespective of grade or salary, but other methods may be used if they provide fair and reasonable results.

Overheads for universities and higher education establishments operating on the full cost basis should relate to the research activities only (all expenditure relating to teaching, students, and non research activities must be excluded). **SUCH ORGANISATIONS OPERATING ON THE MARGINAL COST BASIS SHOULD NOT COMPLETE THIS PART OF THE FORM;** in this case overheads may be charged at a fixed percentage, corresponding to a maximum of 20% of all cost categories except associated contracts and VAT.







PARTICIPANT  
NUMBER 06

OF COMMISSION USE									
EN	SS	101571			SS				

**OVERHEADS** (continuation)

First year of project

Equivalent for  
last audited  
financial year

Carried forward:

(3) Non site overheads

TOTAL: 4065000

3870000



PARTICIPANT  
NUMBER 06

EN TT 101571

FOR COMMISSION USE

TT

**OVERHEADS** (continuation)

If the items specified on pages I-4 and I-5 are grouped by the participant in any other manner, please complete the table below indicating the categories of costs used in a clear and unambiguous manner.

	First year of project	Equivalent for last audited financial year
(1) <b>Related to cost centre</b> (e.g. division or department) <b>where project is to be carried out</b>		
(2) <b>Related to site where project is to be carried out</b>		
(3) <b>Non site overheads</b>		

TOTAL:

**Justification for in-house studies and any non site overheads must be inserted on previous page I-5.**





**Notes concerning page I-8**

**Personnel numbers:** the RTD personnel should correspond to the number of staff directly engaged in undertaking RTD activities; all other staff should be included in the figure relating to the number of other personnel.

PARTICIPANT  
NUMBER 06

EN VV 101571

V V

**OVERHEADS** (continuation)

**SITE RTD COSTS**

Specify in respect of the site at which the project is to be carried out for the last audited financial year of the participant:

(a) Personnel numbers

(b) Total costs

(c) Allocation of overheads

For universities and higher education establishments using full costs, have the teaching, student and other costs been separated from the research costs prior to commencing the calculation concerning overheads?

YES

NO





PARTICIPANT  
NUMBER 06

EN WW 101571

WW

**OVERHEADS** (continuation)

— Recovery of overheads

Is the overhead recovered on a per head basis

YES  NO

91

8990

14

14

MONTHS  
xxx

154

154

4065000

3870000

MONTHLY

~~Hourly~~ overhead rate per head

26400

25100

If the participant does not recover overheads  
on the above per head basis

Specify hourly overhead rate

Details of calculation of recovery of overhead rate to be specified on page I-10)

— Hourly overhead rates for each year of project

Average annual % increase



PARTICIPANT  
NUMBER 06

EN Z1 101571

Z1

TOP COMPLETIONS

Details of calculation of overhead rate if not recovered on a per head basis as specified on page I-9.



NUMERO DEL PARTECIPANTE

07

(come specificato a pag. 2 della proposta originaria, o nell'Allegato II se completato)

RISERVATO ALLA COMMISSIONE										
IT	DD	401106								

PARTE 2 — INFORMAZIONI SUI PARTECIPANTI

(da completarsi a cura di ciascun organismo partecipante elencato a pag. 2)

IL COORDINATORE  CR  AC  SC  Collegato al Contraente: (numero specificato a pagina 2)

2A — DETTAGLI AMMINISTRATIVI E COSTI DEL PROGETTO

DENOMINAZIONE UFFICIALE DELL'ENTE

ISTITUTO INQUINAMENTO ATMOSFERICO  
CONSIGLIO NAZIONALE DELLE RICERCHE

Persona munita del potere di firmare il contratto:

Cognome ROSSI BERNARDI

Nome LUIGI

Titolo/i PROF.

Posizione PRESIDENT

Nome della persona responsabile della negoziazione del contratto:

MRS MAZZEI GIOVINA

Posizione

DIRIGENTE SRI

Recapito, telefono, telex, telefax, ecc.:

- identici a quelli della sede legale o principale indicata nella proposta
- identici a quelli dello stabilimento, dipartimento, ecc. indicato nella proposta
- se sono differenti, o differiscono in qualche punto, specificare:

Indirizzo: N. 7 PIAZZALE ALDO MORO

Città: ROMA Codice postale: 00185 CEDEX:

Paese: ITALIA Codice IT Telefono: 3964993 Int.: 3550

Telex: 610076 CNR RMI Telefax: 396490134

Teletext: E-Mail Tipo:

Sono già stati concordati i termini di massima per i contratti associati?

NON PREVISTI  SI  NO

Data prevista per la stipula 19AAMMJJ

**Note concernenti la pag. 4.**

**Previsioni dei costi:** le cifre da inserire devono corrispondere ai totali ottenuti per ciascuna categoria di costi specificata nelle pagine seguenti della Parte 2 del formulario.

Il calcolo dei costi deve includere margini sufficienti a coprire gli incrementi salariali, l'aumento dei prezzi, l'inflazione, ecc. Dettagli adeguati sulle percentuali d'aumento vengono richiesti nelle pagine seguenti.

**La previsione generale dei costi, nonché il calcolo dettagliato di tutti i costi previsti nella Parte 2 (e nell'Allegato I, se completato) devono essere effettuati nella valuta nazionale del partecipante.** Per quei Programmi Comunitari di Ricerca che prevedono la presenza di partecipanti aventi sede in Paesi in via di sviluppo situati ai di fuori dell'Europa Occidentale (per es. in Africa, Asia, o nelle Americhe), la valuta utilizzata può essere la valuta nella quale è tenuta la contabilità del partecipante, se diversa dalla valuta nazionale del partecipante stesso, o quella normalmente impiegata per i consuntivi spese, ancorchè la valuta da usare dovrebbe essere di preferenza l'ECU, il dollaro USA o una valuta di un Paese Membro delle Comunità Europee.

**Sistema di calcolo:** l'uso del sistema a **costi marginali** è limitato alle università, agli istituti di istruzione superiore ed a organismi non commerciali assimilati, le cui funzioni primarie non siano connesse ad attività di ricerca. I «costi marginali» sono quei costi effettivamente da sostenere per l'esecuzione del progetto, che siano addizionali rispetto ai costi normalmente ricorrenti.

L'uso del sistema a **costi reali** si riferisce a tutte le altre organizzazioni. Tale sistema, a preferenza di quello a costi marginali, può essere utilizzato anche dagli organismi di tipo universitario più sopra specificati, a condizione che vengano mantenuti ed effettivamente utilizzati presso tali organismi adeguati sistemi di computo dei costi e di registrazione della spesa, che siano graditi alla Commissione. La scelta fra i due sistemi di calcolo dovrebbe comunque essere effettuata in modo uniforme.

NUMERO DEL PARTECIPANTE

RISERVATO ALLA COMMISSIONE

IT EE 401106

Valuta nazionale (specificare)

Codice valutario

**PREVISIONE DEI COSTI**

Costi del progetto divisi per categoria

Costi del progetto divisi per anno

**Costi diretti**

Spese di personale

Indennità di viaggio e soggiorno

Materiale durevole

Materiale non durevole

Prestazioni di terzi

Spese di calcolo

Altre spese

**Costi indiretti**

Spese generali

**TOTALE**

1991

1992

1993

1994

1995

**TOTALE**

TOTALE (ECU)

Sistema di calcolo: Costi reali  Costi marginali

Solo per le università e gli istituti di educazione superiore: il sistema dei costi reali viene utilizzato per altri progetti comunitari di Ricerca e Sviluppo? SI  NO

Specificare in quali programmi:

Al partecipante è consentito il recupero dell'IVA da pagare in connessione con l'esecuzione del progetto? SI  NO

**2B — FINANZIAMENTO DEL PROGETTO**

Contributo finanziario richiesto alle CE: (valuta nazionale)  (ECU)

Fonti di finanziamento per la parte di costi non sostenuta dalle CE:

Partecipanti:

Terzi: Stato/Enti pubblici  Privati:

Ammontare totale del finanziamento

Finanziamento confermato: SI  NO

Data della decisione finale:

Se un terzo finanziante i costi ha sede al di fuori delle CE, o si trova sotto proprietà o controllo di un terzo che ha sede al di fuori delle CE, occorre specificarlo chiaramente:

Nome	Finanziamento	Codice del paese	Paese
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ATTENZIONE: si prega di compilare questo formulario accuratamente, per favore usare 10 caratteri per pollice; non piegare il foglio.



**Note concernenti la pag. 5.**

**Giro d'affari e risultati :** allegare una copia del bilancio annuale per ciascuno degli anni finanziari previsti (a meno che tale documentazione non sia stata già fornita in precedenza).

NUMERO DEL PARTECIPANTE

RISERVATO ALLA COMMISSIONE									
IT	Y1	401106	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

2C — PRINCIPALI REGOLE FINANZIARIE, CONTABILI E DI COMPUTO DEI COSTI DELL'ORGANISMO PARTECIPANTE; SISTEMA TARIFFARIO PER ATTIVITÀ DI RICERCA E SVILUPPO

Anno finanziario: dal  al

Ultimo anno finanziario sottoposto a revisione: dal  al

Giro d'affari nel corso degli ultimi tre anni finanziari (cominciando dal più recente):

Risultati degli ultimi tre anni finanziari (cominciando dal più recente)

(PROFITTI) +

(PERDITE) -

Illustrare le principali regole finanziarie, contabili e di computo dei costi adottate ed applicate dal partecipante (attenzione: se le spese generali sono riferite a categorie di spese diverse dalle spese di personale, occorre precisare quali sono)

Le predette regole sono già state illustrate alla DG XII?

SI

Proposta N.

Programma

(passare alla domanda seguente)

NO

(completare)

IL CONSIGLIO NAZIONALE DELLE RICERCHE E' REGOLATO DAL DPR 696 DEL 18-12-79 CUI SI RINVIA

ATTENZIONE: si prega di compilare questo formulario accuratamente, per facilitare la lettura usare 10 caratteri per pollice; non piegare il foglio.





## **Note concernenti la pag. 7.**

**Regole sui calcolo dei costi:** vedere, in particolare, i Contratti-tipo, la Documentazione informativa, nonché le note di queste istruzioni concernenti il calcolo dei costi di personale e delle spese generali, i costi non imputabili, e le altre voci di spesa diretta.

**Costi non imputabili:** sono indicati all'art. 33 dell'Allegato II ai Contratto-tipo (Contratto Associativo di Ricerca). In particolare non sono imputabili: i profitti; gli interessi o gli utili sul capitale investito; i costi di distribuzione, nonché le spese di commercializzazione e di pubblicità sostenute per diffondere prodotti ed attività commerciali.

Nell'applicazione di questi principî i costi nozionali non possono essere presi in considerazione; tutti i costi devono essere imputati su basi storiche (così, ad es. non sono imputabili i costi correnti, il costo-opportunità, la rivalutazione degli immobili o delle attrezzature, la stima di canoni locativi, ecc.).

**Tariffe governative:** i Contratti-tipo consentono ai partecipanti di proporre alla Commissione sistemi di calcolo delle tariffe di personale e delle spese generali basati su tariffe lavorative e tassi di spese generali di tipo governativo, purchè le regole utilizzate per il loro calcolo non differiscano in maniera significativa dalle regole della Commissione. Tutti quei partecipanti che hanno fissato tariffe preferenziali per lo svolgimento di progetti di ricerca a spese ripartite con enti pubblici del proprio Stato Membro delle Comunità Europee, e che propongono di utilizzarle per il progetto, possono completare questa sezione del formulario, operando gli adeguati adattamenti per tener conto di quei costi che, imputabili sul piano comunitario, non lo siano a livello di Stato Membro (tali adattamenti devono essere chiaramente specificati). **TUTTI GLI ALTRI PARTECIPANTI DEVONO COMPLETARE L'ALLEGATO I AL FORMULARIO.**

Se le tariffe utilizzate sono basate su quelle governative, la Commissione deve poter avere accesso, qualora sia necessario, alle carte di lavoro dell'ente pubblico che le ha approvate.

Si sottolinea che può trattarsi anche di tariffe governative approvate dalle regioni che esercitano i poteri ad esse devoluti, ed in particolare:

- BE = le 3 «regions»;
- DE = gli 11 «Länder»;
- ES = le 2 regioni autonome (Pais Vasco; Catalunya);
- IT = le Regioni, ed in particolare le 5 Regioni a Statuto Speciale.

NUMERO DEL  
PARTECIPANTE

RISERVATO ALLA COMMISSIONE									
IT	FF	401106	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Nel calcolo dei costi del progetto, sono stati presi in considerazione i principi finanziari specificati dalla Commissione (per es.: esclusione di profitti o di costi nazionali; utilizzo dei costi storici e non dei costi correnti; non imputabilità degli interessi, esclusione dei costi non imputabili, ecc.)?

SI  NO

Se si risponde NO, occorre — indicare i principi non applicati;  
— specificare le conseguenze della non applicazione;  
— esporre le ragioni della mancata applicazione.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Le regole finanziarie, contabili e di computo dei costi sono state utilizzate per altre forme di supporto finanziario ricevute da altra Direzione Generale della Commissione?

NO  SI  → Specificare la D.G.

La struttura delle tariffe di personale e delle percentuali di spese generali utilizzate per il progetto, è stata usata ed approvata anche per altre forme di supporto finanziario ricevute da altra Direzione Generale della Commissione?

Spese di personale NO  SI  → Specificare la più recente (D.G., data di approvazione e referenza)   
 Spese generali NO  SI  → Specificare la più recente (D.G., data di approvazione e referenza)

**Tariffe governative**

Il partecipante svolge attività di ricerca a spese ripartite con un ente pubblico del suo Stato Membro?

SI  NO  → (completare l'Allegato I e passare alla Parte 2D)

L'ente pubblico ha approvato le tariffe di personale e le spese generali (esclusa ogni forma di profitto) utilizzate per lo svolgimento del lavoro di ricerca?

SI  NO  → (completare l'Allegato I e passare alla Parte 2D)

Le regole tariffarie che verranno usate dal partecipante nel rapporto con la Commissione, sono le stesse utilizzate per il lavoro di ricerca svolto con l'ente pubblico (con gli opportuni adattamenti specificati nella pagina seguente)?

SI  → (completare i dettagli alla pagina seguente)  
 NO  → (completare l'Allegato I e passare alla Parte 2D)

ATTENZIONE: si prega di compilare questo formulario accuratamente, per favore usare 10 caratteri per pollice; non piegare il foglio.

**Note concernenti la pag. 8.**

**Categorie di personale da utilizzare per il progetto:** ciascuna categoria deve essere identificata in modo chiaro ed univoco, al fine di consentire successivamente alla Commissione di tenere sotto controllo le risorse lavorative dedicate al progetto, di analizzare i consuntivi periodici e di svolgere controlli sul posto.

**Responsabile dell'ente pubblico:** è la persona che presso l'ente pubblico si occupa della fissazione delle tariffe per le attività di ricerca a spese ripartite. La Commissione può contattare direttamente l'ente pubblico in ogni momento, durante l'esecuzione del progetto o durante il periodo massimo stabilito per l'espletamento di controlli sul posto.

NUMERO DEL PARTECIPANTE 07

RISERVATO ALLA COMMISSIONE  
IT V1 401106

Categorie di personale da utilizzare per il progetto

Tariffa oraria governativa più recente

Tasso governativo orario di spese generali più recente

Tasso orario di spese generali rivisto con esclusione dei costi non imputabili alla Commissione

01				
02				
03				
04				
05				
06				

Tali tariffe governative sono usate per tutte le attività di ricerca a spese ripartite svolte con enti pubblici?

SI  NO  Fornire dettagli su tariffe più basse:

Form area for providing details on lower rates.

Fornire dettagli sugli adattamenti applicati al tasso orario governativo di spese generali per arrivare al tasso rivisto (deduzioni: -; aggiunte: +).

Form area for providing details on adjustments to the general expenditure rate.

Data di approvazione dell'ultima tariffa oraria e del relativo tasso di spese generali: 1988

Data del più recente controllo svolto da un ente pubblico sulle tariffe orarie e sui tassi di spese generali: 1988

Fornire gli estremi del funzionario responsabile, per conto di un ente pubblico, della verifica delle regole finanziarie, contabili e di computo dei costi:

Nome

Ente pubblico

Indirizzo: N.

Città: Codice postale: CEDEX:

Paese: Codice Telefono: Int.:

Telex: Telefax:

Teletext: E-Mail Tipo:

ATTENZIONE: si prega di compilare questo formulario accuratamente, per facilitare la lettura di esso, usare 10 caratteri per pollice; non piegare il foglio.



**Note concernenti la pag. 9.**

**Salari medi :** possono essere usati qualora riflettano in modo ragionevole il costo reale del personale utilizzato per lavorare sul progetto. I salari medi possono riferirsi ad una singola categoria di personale, oppure a diverse categorie, le quali riflettano in misura esauriente il ventaglio delle categorie lavorative utilizzate per lo svolgimento del progetto.



#### **Note concernenti la pag. 10.**

**Numero di ore/mesi:** I partecipanti che utilizzano il sistema di calcolo a costi marginali possono fornire le informazioni richieste facendo riferimento a mesi ed a tariffe lavorative su base mensile. Tutti gli altri partecipanti che utilizzano il sistema a costi reali devono utilizzare le ore, nonché tariffe lavorative su base oraria.

**Tariffa di personale e tasso di spese generali:** per quei partecipanti che utilizzano il sistema di calcolo a costi reali e propongono l'utilizzazione delle tariffe governative opportunamente adattate, la tariffa di personale deve essere quella indicata a pag. 8 (aumentata, se necessario, delle percentuali indicate a pag. 9 per la durata del progetto), mentre il tasso di spese generali deve essere il tasso rivisto indicato a pag. 8 (similmente aumentato se necessario).

Per tutti gli altri partecipanti a costi reali, che devono completare l'Allegato I, la tariffa di personale deve essere quella indicata a pag. I-3 (aumentata, se necessario, delle percentuali indicate a quella pagina). Il tasso di spese generali deve essere quello indicato a pag. I-9.

Per i partecipanti che utilizzano il sistema di calcolo a costi marginali, e pertanto tariffe di personale su base mensile, le tariffe mensile devono essere estrapolate dai salari annuali indicati a pag. I-3 (aumentati, se necessario, delle percentuali indicate a quella stessa pagina). Le spese generali non possono superare il 20% del totale dei costi. SI VEDA LA NOTA CONCERNENTE LA PAG. I-3.

NUMERO DEL  
PARTECIPANTE

RISERVATO ALLA COMMISSIONE

IT X1 401106

**2D — ANALISI DEI COSTI**

Data del cambio annuale delle tariffe usate:

**2D(1) — SPESE DI PERSONALE E SPESE GENERALI**  
(da completare per ciascuna categoria indicata a pag. 8)

Anno	Numero di ore/mesi	Tariffa di personale	Totale	Tasso di spese generali	Totale
Base di calcolo:					
	Ore <input type="text"/>	Mesi <input type="text"/>			
<b>Categoria 01</b>					
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotale	<input type="text"/>	Subtotale	<input type="text"/>
<b>Categoria 02</b>					
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotale	<input type="text"/>	Subtotale	<input type="text"/>
<b>Categoria 03</b>					
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text" value="19AA"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		Subtotale	<input type="text"/>	Subtotale	<input type="text"/>

ATTENZIONE: si prega di compilare questo formulario accuratamente, per facilitare la lettura, usare 10 caratteri per pollice; non piegare il foglio.





**Note concernenti la pag. 12.**

**Indennità di viaggio e soggiorno:** va sottolineato come i viaggi ai di fuori dell'Europa Occidentale durante il progetto necessitano dell'approvazione preventiva della Commissione. L'inclusione dei costi previsti per tali viaggi non costituisce una richiesta implicita di approvazione. Per quei progetti nei quali è previsto che il lavoro sui campo venga svolto in Paesi ai di fuori dell'Europa Occidentale, adeguate clausole contrattuali regoleranno il procedimento di approvazione.

**Materiale durevole e non durevole:** per la definizione, si vedano gli artt. 27 e 28 dell'Allegato II al Contratto-tipo (Contratto Associativo di Ricerca). Il materiale durevole è sottoposto alle regola dell'ammortamento su base lineare (3 anni, se si tratta di calcolatori di valore inferiore a 10 000 ECU; 5 anni, in tutti gli altri casi). Il materiale acquistato esclusivamente per il progetto può considerarsi allocato al 100% al progetto stesso, anche se non viene usato costantemente.

NUMERO DEL  
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RISERVATO ALLA COMMISSIONE

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## 2D(2) — ALTRI COSTI DIRETTI

Indennità di viaggio e soggiorno  
(incluse adeguate imputazioni per viaggi a Bruxelles)

	Ammontare	Subtotale
— All'interno dell'Europa Occidentale		
<input type="text" value="BRUSSELS"/>	<input type="text" value="7000000"/>	
<input type="text" value="ITALIA CITTA' DIVERSE"/>	<input type="text" value="3000000"/>	
<input type="text"/>	<input type="text"/>	<input type="text" value="10000000"/>
— Al di fuori dell'Europa Occidentale		
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>
— Conferenze/Seminari		
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>
Totale		<input type="text" value="10000000"/>

## Materiale durevole

Descrizione	Data di acquisto	Costo	Percentuale di allocazione al progetto	Ammontare imputabile al progetto
<input type="text"/>	<input type="text" value="19AAMMJJ"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="19AAMMJJ"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="19AAMMJJ"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="19AAMMJJ"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text" value="19AAMMJJ"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Totale				<input type="text"/>

## Materiale non durevole

Categorie	Ammontare
<input type="text" value="GLASSWARE"/>	<input type="text" value="3000000"/>
<input type="text" value="ELECTRONIC COMPONENTS"/>	<input type="text" value="2000000"/>
<input type="text" value="STANDARDS, REAGENTS, GASES"/>	<input type="text" value="15000000"/>
<input type="text" value="GC AND HPLC COLUMNS, AND ELUENTS"/>	<input type="text" value="22000000"/>
<input type="text" value="PERMEATION DEVICES"/>	<input type="text" value="3000000"/>
Totale	<input type="text" value="45000000"/>

ATTENZIONE: si prega di compilare questo formulario accuratamente, per favore usare 10 caratteri per pollice; non piegare il foglio.



**Note concernenti la pag. 13.**

**Principali subcontraenti** (per le categorie dei partecipanti, vedi le note alle pagine precedenti): essi devono completare la tabella previsionale dei costi a pag. 4 del formulario.

**Affiliazione:** sussiste quando due organismi sono collegati per effetto di un rapporto di controllo od altro (incluso il fatto che si trovino sotto il controllo ultimo di un terzo organismo).

NUMERO DEL PARTECIPANTE

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Prestazioni di terzi

Subcontraenti secondari:

Partecipante N.

Partecipante N.

Partecipante N.

Subcontraenti principali:

Nome	Codice Paese	Lavoro/Prestazione	Ammontare	Subtotale
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Prestazioni di servizi:

CARLO ERBA	IT	INSTRUMENTS ASSISTANCE	5000000	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			Totale	5000000

Taluno dei subcontraenti o dei prestatori di servizi è affiliato al contraente?

NO  SI

Se SI, specificare

Spese di calcolo:

Descrizione	Ammontare	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
Totale		<input type="text"/>

Altre spese

Descrizione	Ammontare	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
Totale		<input type="text"/>

usare 10 caratteri per pollice; non piegare il foglio.



NUMERO DEL  
PARTECIPANTE

07

RISERVATO ALLA COMMISSIONE

IT NN 401106

Grid of boxes for identification numbers: [ ][ ] [ ][ ] [ ][ ][ ][ ][ ][ ][ ][ ]

Si è reso necessario completare:

l'ALLEGATO I	NO	<input type="checkbox"/>	SI	<input checked="" type="checkbox"/>
l'ALLEGATO III	NO	<input type="checkbox"/>	SI	<input type="checkbox"/>

(allegare i documenti)

ATTENZIONE: si prega di compilare questo formulario accuratamente, per l'identificazione del partecipante utilizzare 10 caratteri per pollice; non piegare il foglio.

Noi certifichiamo che le informazioni contenute nella Parte 2 e negli Allegati I e III (se completati), sono corrette e veritiere, e che le informazioni finanziarie sono in accordo con la definizione di costi imputabili fornita dal Contratto-tipo (1.10.1988) per azioni comunitarie nel campo della ricerca e dello sviluppo tecnologico nonché con le regole sul computo dei costi specificate dalla Commissione.

(Resp. Scientifico Autorizzato)

(Resp. Amministrativo autorizzato)

Nome: [ ][ ] [ ]

Nome: [ ][ ] [ ]

Qualifica: [ ]

Qualifica: [ ]

Data: [ ]

Data: [ ]

Firma:

Firma:

**Note concernenti la pag. I-1.**

**Categorie di personale da imputare al progetto:** si veda la nota concernente la pag. 8.

NUMERO DEL  
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**ALLEGATO III — PARTE B**  
**INFORMAZIONI SUI PARTECIPANTI. DETTAGLI AMMINISTRATIVI**

(deve essere completato da ciascun partecipante non incluso nella proposta originaria, o nei caso in cui i dettagli forniti nella proposta siano cambiati)

COORDINATORE

CR

AC

SC

associato al contraente n.:  
(vedi pag. 2) 07

**DENOMINAZIONE UFFICIALE  
DELL'ENTE**

CONSIGLIO NAZIONALE DELLE RICERCHE

INDIRIZZO COMPLETO DELLA SEDE LEGALE (SOCIETÀ) O DELLA SEDE PRINCIPALE

Via: N.

Città:  Codice Postale:  CEDEX:

Paese:  Codice  Telefono:  Int.:

Telex:  Telefax:

Teletext:  E-Mail Tipo:

**ISTITUTO,  
DIPARTIMENTO,  
DIVISIONE  
O LABORATORIO  
RESPONSABILE  
DEL PROGETTO**

ISTITUTO INQUINAMENTO ATMOSFERICO

INDIRIZZO (se diverso da quello sopraindicato)

Via: N.  VIA SALARIA KM 29,300

CP 10

Città: MONTEROTONDO STAZIONE Codice Postale: 00016 CEDEX:

Paese: ITALIA Codice IT Telefono: 39690020652 Int.:

Telex: 624809 CNR MLI Telefax: 3969005849

Teletext:  E-Mail Tipo:

NOME DEL RESPONSABILE SCIENTIFICO P. DICCIOLI

QUALIFICA: SENIOR RESEARCHER

**NATURA E STRUTTURA DELL'ENTE**

Impresa industriale Tipo: Manifatturiera  Altro (specificare)

Dimensione: Grande  Medio/Piccola (PMI)   
Numero di addetti < 20  20-99  100-499

Università/Istruzione superiore:

Istituto/Laboratorio di ricerca: Privato  Statale/Pubblico  Misto

Organizzazione internazionale:  Altro (specificare):

usare 10 caratteri per pollice; non piegare il foglio.







**Note concernenti la pag. III-3.**

La principale distinzione fra i risultati della ricerca è la seguente:

- **risultati derivati** sono le cognizioni, le invenzioni ed i brevetti sviluppati per effetto del progetto di ricerca finanziato dalla Commissione;
- **risultati di base** sono le cognizioni, le invenzioni ed i brevetti che già preesistevano al progetto, o che sono stati sviluppati indipendentemente dal progetto di ricerca.

NUMERO DEL  
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RISERVATO ALLA COMMISSIONE

IT	JJ	401106							
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### UTILIZZAZIONE DEI RISULTATI

#### RISULTATI DERIVATI

Esistono impegni precedenti o interessi commerciali dell'ente partecipante:

- a) per cui l'ente partecipante deve divulgare qualsiasi informazione o risultato ottenuto nell'ambito del progetto ad una qualsiasi altra struttura, diversa da un altro contraente o contraente associato nel progetto? NO  SI

Se SI specificare i (il) nomi(e) della struttura e la natura dell'impegno


- b) che potrebbero interferire con il completamento del progetto o con la libera disponibilità delle informazioni o dei risultati ottenuti nell'ambito del progetto verso altri in conformità con le condizioni contrattuali standard della CCE? NO  SI

Se SI specificare le caratteristiche dell'impegno o degli interessi commerciali


#### RISULTATI DI BASE

Lista dei brevetti e delle informazioni posseduti o controllati (brevetti e informazioni precedenti) dall'ente partecipante, necessari per completare il progetto:

Numero del brevetto	Breve descrizione
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Ci sono limitazioni relative alla diffusione e all'uso di questi brevetti e di queste informazioni in conformità con le condizioni standard della CCE per i contratti RST?

— per fini RST: NO  SI

— per lo sfruttamento o la commercializzazione: NO  SI

Se SI specificare:


ATTENZIONE: si prega di compilare questo formulario accuratamente, per favore usare 10 caratteri per pollice; non piegare il foglio.



PARTICIPANTE  
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08

(el, asignado en la  
página 2 de la propus-  
ta original o en el  
Anexo II si hubiera sido  
cumplimentado)

ES DD 502068

PARA USO DE LA COMISIÓN

## PARTE 2 — INFORMACIÓN DEL PARTICIPANTE

(A ser cumplimentada por cada organización participante detallada en la página 2)

EL COORDINADOR

CO

CA

SC

Vinculado al contratante:  
(número atribuido en página 2 p.ej. 01) 08

### 2A — DATOS ADMINISTRATIVOS Y COSTES

NOMBRE O DENOMINACIÓN SOCIAL  
COMPLETA DE LA ORGANIZACIÓN

INSTITUTO DE SALUD CARLOS III  
CENTRO NACIONAL DE SANIDAD AMBIENTAL

Nombre de la persona autorizada a firmar el contrato

Apellidos

NAJERA MORRONDO

Nombre

RAFAEL

Empleo

DIRECTOR

Cargo

DIRECTOR

Nombre de la persona responsable  
de la negociación del contrato

ROSALIA FERNANDEZ PATIER

Cargo

SCIENTIFIC

Dirección, teléfono, télex, telefax, etc.:

— idéntica a la oficina principal o sede social indicada en la propuesta

— la misma de la unidad, departamento, etc., indicada en la propuesta original

— si distinta o algunos detalles son diferentes, detallar a continuación:

Calle: Nro. Km.2 Crta. MAJADAHONDA A POZUELO

Ciudad: MAJADAHONDA

Distrito postal: 280220

CEDEX:

País: ESPAÑA

Código:

Teléfono: 3416381111

Ext. 112

Télex: 47209 INSAN

Telefax: 3416380613

Teletexto

Sistema de  
correo  
electrónico:

¿Se ha concluido algún proyecto de acuerdo sobre los contratos asociados?

No hay

SI

NO

Fecha esperada de conclusión del acuerdo

19921231

#### Notes concerning page 4

**Breakdown of costs:** the figures should correspond to the total for each cost category detailed in subsequent pages of Part 2 of the form.

The cost calculations should include sufficient allowances to cover pay or price increases, inflation, etc. Details of percentage increases are required in subsequent pages.

**For EC and EFTA participants the estimated cost breakdown and all cost calculations in Part 2 (and Annex I, if completed) must be completed in the national currency of the participant.** For those RTD programmes where there are participants situated in developing countries outside Western Europe (e.g. in Africa, Asia, and the Americas) the currency used may be the currency in which the accounts are kept, if different from the national currency, or that normally used for cost reporting, but the currency used should be preferably ECU, U.S. Dollars, or a currency of one of the Member States of the EC.

**Basis of costs:** The use of **marginal costs** is restricted to universities, higher education establishments and similar non-commercial organisations whose primary functions are not related to research activities. Marginal costs are those actual costs for the execution of the project which are additional to the normal recurrent costs.

The use of **full costs** relates to all other organisations. Full costs, rather than marginal costs, may be used by those bodies specified above provided that appropriate costing and recording systems, to the satisfaction of the Commission, are maintained and in operation at the body concerned. The body should apply full costs or marginal costs in a consistent manner.

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PARA USO DE LA COMISIÓN  
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Moneda nacional (especificar)

Código divisa

Peseta

DESGLOSE ESTIMADO DE COSTES

Por partidas para todo el proyecto

<b>Costes directos</b>	
Costes laborales	<input type="text" value="3.229.000"/>
Viajes y dietas	<input type="text" value="1.990.000"/>
Equipamiento	<input type="text" value="3.000.000"/>
Consumibles	<input type="text" value="800.000"/>
Servicios externos	<input type="text" value="500.000"/>
Informática	<input type="text" value="1.000.000"/>
Otros	<input type="text" value="500.000"/>
<b>Costes indirectos</b>	
Gastos generales	<input type="text" value="1.000.000"/>
<b>TOTAL</b>	<input type="text" value="12.019.000"/>

Por años para todo el proyecto

1991	<input type="text" value="6.019.000"/>
1992	<input type="text" value="6.000.000"/>
	<input type="text"/>
	<input type="text"/>
	<input type="text"/>
<b>TOTAL</b>	<input type="text" value="12.019.000"/>

TOTAL ECU

Sistema de costes:

Total

Marginal

Para universidades y centros de educación superior solamente

¿Utilizan el sistema de «coste total» para todos los proyectos I + D con la CE?

SI

NO

Especifíquese qué programas:

¿Puede el participante recuperar directamente por cualquier medio el IVA soportado con motivo de la ejecución del proyecto?

SI

NO

2B — FINANCIACION DEL PROYECTO

(Moneda nacional)

(ECU)

Contribución financiera solicitada de la CE:

Fuentes de recursos distintas de la CE:

Participantes:

Terceros:

Estado/Pública:

Privada:

Financiación confirmada  
SI  NO

Fecha esperada para la última decisión

Importe total de la financiación

Si un tercero financiante de los costes está situado fuera de la CE, o es controlado o es propiedad a su vez de otro tercero situado fuera de la CE, especificar:

Nombre/Denominación social

Importe de la financiación

Código del país

País

Limpie una máquina de escribir o un ordenador. Pulsete -- NO pregar o grapar este impreso.

**Notes concerning page 5**

**Turnover and results:** a copy of the annual report and balance sheet for each of the years should be provided unless previously supplied.









#### Notes concerning page 7

**Cost principles:** see, in particular, the Model RTD Contracts, the Information Package, and notes in these Instructions relating to labour and overhead calculations, non allowable costs, and other direct cost items.

**Non allowable costs** are indicated in Art. 33 of Annex II to the Model RTD Contract (Actual Cost Contract). In particular they exclude profit; any interest or return on capital employed; distribution expenses, and marketing and advertising expenses to promote products and commercial activities.

In the application of these principles no notional costs should be used; costs should relate to those on an historic basis (current costs, opportunity costs, revaluations of buildings or equipment, deemed rentals, etc., are not allowable).

**Government RTD rates:** the Model RTD Contracts enable participants to propose labour and overhead rate calculations based on government labour and overhead rates where the principles for their calculation do not significantly conflict with the EC principles. Those participants which have established non competitive rates for carrying out cost-shared RTD projects with the government of its Member State of the EC, and which propose to use these rates as a basis for the project, may complete this part of the form, making such adjustments as are appropriate to these rates to take account of costs allowable by the EC which differ from its Member State. The adjustments made to the government rates must be specified. ALL OTHER PARTICIPANTS MUST COMPLETE ANNEX I TO THE FORM.

If the rates are based upon government rates the EC must have access, where necessary, to the working papers of the government.

Rates approved by the government of the Member State include those approved by regions exercising devolved powers, namely:

- BE = the 3 Regions
- DE = the 11 Länder
- ES = the 2 autonomous regions (Pais Vasco; Cataluña)
- IT = the 5 Regioni a Statuto Speciale.

PARTICIPANTE  
NÚMERO

PARA USO DE LA COMISIÓN									
ES	FF	502068	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

¿Se han utilizado los principios de contabilidad de costes aprobados por la CE en el cálculo del coste de este proyecto? (p.ej. no inclusión de beneficios; uso de costes históricos y no costes actuales; no consideración de intereses; exclusión de costes no autorizados, etc.):

SI  NO

Si NO, sírvase — identificar cuáles no son aplicados,  
— explicitar el impacto de la no aplicación, y  
— justifique las razones para no aplicarlos.

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

¿Se han utilizado estos principios de contabilidad general, de costes y financiera para la obtención de apoyo financiero de otra Dirección General de la CE?

NO  SI  → Especifique DG

¿La estructura de costes laborales y coste por gastos generales ha sido propuesta y aceptada para ayudas financieras recibidas de otra Dirección General de la CE?

C. Laborales	NO <input checked="" type="checkbox"/>	SI <input type="checkbox"/>	→ Especifique el más reciente (DG, fecha de aprobación y referencia)	<input type="text"/>	<input type="text"/>
Costes por gastos generales	NO <input checked="" type="checkbox"/>	SI <input type="checkbox"/>	→ Especifique el más reciente (DG, fecha de aprobación y referencia)	<input type="text"/>	<input type="text"/>

**Escala oficial de I+D**

¿Ha intervenido el participante en acciones de I+D a coste compartido con su gobierno?

SI  NO  → (Rellene el Anexo I y continúe en parte 2D)

¿Ha aprobado el gobierno las escalas de costes laborales y de costes por gastos generales, excluido beneficios, para la realización de dicha acción de I+D?

SI  NO  → (Rellene el Anexo I y continúe en parte 2D)

¿Son los principios aplicados al cálculo de las escalas usadas por el participante para la CE los mismos que para las acciones de I+D realizadas con el gobierno? (después de cualquier ajuste necesario que se detalle en la siguiente página):

SI  → (Indique los detalles en la siguiente página)  
NO  → (Rellene el Anexo I y continúe en parte 2D)

Este documento es una copia impresa de un documento electrónico. El presente impreso no es válido para efectos legales. No plegar ni grapar este impreso.

**Notes concerning page 8**

**Grades of labour to be charged to the project:** each grade should be identified in a clear and unambiguous manner to enable the EC subsequently to monitor the labour resources devoted to the project, analyse cost claims, and carry out audits.

**Government departments responsible** for establishing cost-shared RTD rates. The EC may contact the government department at any stage during the project or the period for carrying out audits.

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Categorías laborales imputables al proyecto

		Ultimo coste/ hora aprobado por el gobierno	Ultima tasa del coste/hora por gastos generales aprobada por el gobierno	Tasa revisada del coste/hora por Gastos Generales (excluidos los costes no autori- zados por la CE)
01	Facultativos Técnico	1092		
02	Auxiliar de Investigación	468		

¿ Estas escalas aprobadas por el gobierno han sido usadas en todas las acciones I + D con dicho gobierno?  
SI  NO  → Dar detalles de aquellas que hayan sido inferiores:

Form area for providing details of inferior scales.

Detalle de los ajustes efectuados al coste/hora por gastos generales aceptada por el gobierno para llegar a la tasa revisada (indicar deducciones con - y adiciones con +).

Fecha de la última escala de costes laborales y de costes por gastos generales aprobada por el gobierno: 19900701

Fecha de la última auditoría efectuada por el gobierno de las escalas de costes laborales y de costes por gastos generales: 19881228

Datos del funcionario del gobierno responsable de verificar los principios de contabilidad general, de costes y financiera.

Nombre y apellidos M<sup>a</sup>. JOSE ARCOS SALCELO

Nombre del departamento Contabilidad del Inst. de Salud Carlos III

Calle: Nro. 7 Ventura Rodríguez

Ciudad: MADRID Distrito postal: 28008 CEDEX:

País: ESPAÑA Código: Teléfono: 5419968 Ext.: 281

Telex: Telefax: 2475436

Teletexto Sistema de correo electrónico:

Emplee una máquina de escribir a 10 caracteres/pulgada — No plegar o grapar este impreso.

#### **Notes concerning page 9**

**Average salaries** may be used where they reasonably reflect the cost of the labour to work on the project. The average salaries may relate to a single grade of labour, or different grades which fairly reflect the mix of grades working on the project.

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NÚMERO

08

PARA USO DE LA COMISIÓN

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La imputación al proyecto de los costes laborales se realizará en base a los:

Salario real

Salario medio

Otros

Explique la base de cálculo, incluyendo una descripción de los límites de cualesquiera bandas o grados, usadas en el cálculo de los costes laborales.

Lo establecido por el Gobierno en los Presupuestos Generales del Estado entre los que se encuentran los aprobados al Organismo Autónomo Instituto de Salud Carlos III

ATENCIÓN: Este formulario debe cumplimentarse correctamente en presente impreso ya que se empuja un lector óptico. Emplee una máquina de escribir a 10 caracteres/pulgada. No plegar ni grapar este impreso.

Indicar para cada año de duración del proyecto el porcentaje estimado de aumento sobre las escalas estimadas de costes laborales y de costes por gastos generales indicadas en la página anterior:

El mismo para todas las categorías  (completar únicamente 01)

Diferente para cada categoría  (completar para cada categoría)

Categoría	Costes laborales					Gastos generales				
	1991	1992				1991	1992			
01	7	7				8	8			
02	7	7				8	8			
03										
04										
05										
06										

Incremento medio anual 7

Incremento medio anual 8



## Notes concerning page 10

**Number of hours/months:** those participants working on a marginal cost basis may provide the information by reference to months and monthly labour cost rates. All other participants working on a full cost basis must use hours and hourly labour cost rates.

**Labour cost rate and overhead rate:** for those participants working on a full cost basis and proposing to use government RTD rates appropriately adjusted, the labour cost rate should be that shown on page 8 (increased if necessary by the percentages shown on page 9 for the duration of the project) and the overhead rate is the revised overhead rate shown on page 8 (similarly increased if necessary).

For all other participants, who must complete Annex I, the hourly labour cost rate should be that shown on page I-3 (increased if necessary by the percentages shown on that page). The overhead rate should be that shown on page I-9 for those working on a full cost basis; the overhead rate should be a maximum of 20% for those working on a marginal cost basis.

For those participants using marginal costs and monthly labour cost rates, the monthly rates should be derived from the annual salaries shown on page I-3 (increased if necessary by the percentages shown on that page) — SEE NOTE RELATING TO PAGE I-3.

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ES X1 502068

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2D — DESGLOSE DE COSTES

Fecha anual de cambio de las tarifas aplicadas

2D(1) — Costes laborales y costes por gastos generales (deberá completarse para cada una de las categorías indicadas en la página 8)

Año	Número de horas/meses	Coste laboral	Total	Tasa del coste por gastos generales	Total
Base usada: Horas <input checked="" type="checkbox"/> Meses <input type="checkbox"/>					
Categoría 01					
1991	1000	1092	1.092.000		
1992	1000	1168	1.168.000		
		Subtotal	2.260.000	Subtotal	
Categoría 02					
1991	1000	468	468.000		
1992	1000	501	501.000		
		Subtotal	969.000	Subtotal	
Categoría 03					
		Subtotal		Subtotal	

— Emplee una máquina de escribir a 10 caracteres/pulgada — No plegar o grapar este impreso.





## Notes concerning page 12

**Travel and subsistence:** participants should note that travel outside Western Europe during the project requires the prior approval of the EC. The inclusion of estimated costs of such travel does not constitute a request for such approval. For those projects where known field work will be carried out in states outside Western Europe appropriate arrangements will be made in the specific contract to regulate the approval process.

**Durable equipment and consumables:** Article 27 and 28 of Annex II of the Model RTD Contract (Actual Cost Contract) specify the definitions of these cost categories. Durable equipment must be depreciated on a linear basis (either 3 years if it is computing equipment with a value of less than 10,000 ECU, or 5 years in the case of all other equipment). Equipment which is purchased solely for the project may be considered to be allocated 100% to the project even though it is not in constant use.

PARTICIPANTE  
NÚMERO

PARA USO DE LA COMISION  
ES W1 502068

2D(2) — OTROS COSTES DIRECTOS

Viajes y dietas  
(incluir los viajes a Bruselas)

	Importe	Subtotal
<input type="checkbox"/> Dentro de Europa occidental		
<input type="checkbox"/> 1 Viaje Noruega - Suecia	<input type="text" value="475.000"/>	
<input type="checkbox"/> 2 Viajes Roma	<input type="text" value="640.000"/>	
<input type="checkbox"/> Otros Viajes a determinar	<input type="text" value="750.000"/>	
		<input type="text" value="1.865.000"/>
<input type="checkbox"/> Fuera de Europa occidental		
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/> Conferencias/seminarios		
<input type="checkbox"/> 1 Seminario	<input type="text" value="125.000"/>	
<input type="text"/>	<input type="text"/>	
		<input type="text" value="125.000"/>
		<input type="text" value="1.990.000"/>

Equipamiento

Descripción	Fecha estimada de compra	Coste	% de utilización en el proyecto	Importe imputable al proyecto
<input type="checkbox"/> 1 Crona tógrafa de gases	<input type="text" value="19910501"/>	<input type="text" value="2.500.000"/>	<input type="text" value="80"/>	<input type="text" value="2.000.000"/>
<input type="checkbox"/> 1 Sistema automático inyección	<input type="text" value="19910501"/>	<input type="text" value="1.250.000"/>	<input type="text" value="75"/>	<input type="text" value="1.000.000"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
				<input type="text" value="3.000.000"/>

Consumibles

Denominación	Importe
<input type="checkbox"/> Patróns de PAN	<input type="text" value="500.000"/>
<input type="checkbox"/> Material de vidrio	<input type="text" value="200.000"/>
<input type="checkbox"/> Productos químicos	<input type="text" value="100.000"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
	<input type="text" value="800.000"/>

- Utilice una máquina de escribir a 10 caracteres/pulgada — No plegar o grapar este impreso.

### **Notes concerning page 13**

**Major subcontractors** (see notes concerning page 3: categories of participants). Major subcontractors must complete the estimated cost breakdown on page 4 of the form.

**Affiliation:** affiliation will exist when two organisations are linked by way of control by any means (including under the same ultimate control by a third organisation).

PARTICIPANTE  
NÚMERO

08

PARA USO DE LA COMISIÓN

ES MM 502068

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Servicios externos

Subcontratos principales

Participante Nro.

Participante Nro.

Participante Nro.

Nombre/ Denominación	Código del país	Trabajo/Servicio a prestar	Importe	Subtotal
Subcontratos secundarios				
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Servicios				
Mantenimiento	<input type="text"/>	Puesta a punto equipos	300.000	
Transporte	<input type="text"/>	Traslado equipos	200.000	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
			Total	500.000

¿Está algún subcontratante/suministrador vinculado con el contratante?

NO  SI

Si SI, detallar nombre y  
clase de vínculo

<input type="text"/>
----------------------

Informática

Descripción	Importe	
1 Ordenador con Software analítico	1.000.000	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
Total		1.000.000

Otros

Descripción	Importe	
Gastos varios técnicos y de gestión	500.000	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	
Total		500.000

— Emplee una máquina de escribir a 10 caracteres/pulgada — No plegar o grapar este impreso.



PARTICIPANTE  
NÚMERO

PARA USO DE LA COMISIÓN									
ES	NN	502068	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ha sido necesario cumplimentar:

ANEXO I                      NO                       SI  (Adjuntar el anexo debidamente cumplimentado)

ANEXO III                      NO                       SI  (Adjuntar el anexo debidamente cumplimentado)

Emplee una máquina de escribir a 10 caracteres/pulgada — No plegar o grapar este impreso.

Los abajo firmantes certificamos que la información contenida en la Parte 2 y en los Anexos I y III, si se han cumplimentados, es correcta y veráz, y que la información financiera y contable cumple con lo definido como costes autorizados en el modelo de contrato de I+D (versión 01.10.1988) y con los principios de cálculo y contabilidad de costes aceptados por la CE.

(Responsable científico autorizado)

Nombre:

Cargo:

Fecha:

Firma:

(Responsable administrativo responsable)

Nombre:

Cargo:

Fecha:

Firma:

**ENCLOSURE 10**

On 13 November the commission informed the co-ordinator that the contract could be concluded under the framework of the 4th environment programme

A diagramme that was missing in the previously forwarded documents was sent to the commission on 30 November



DEAR DR. KROGNES

PROP. PL 900289

I AM PLEASED TO INFORM YOU THAT IT SEEMS FINALLY POSSIBLE TO CONCLUDE A CONTRACT WITH YOUR ORGANIZATION IN THE FRAME OF THE ONGOING 4TH ENVIRONMENT PROGRAMME 1986-1990.

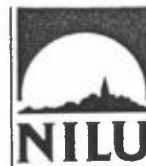
COULD YOU PLEASE SEND ME A TABLE DIAGRAMME OR BAR CHART CONCERNING THE WORK PROGRAMME, MAKING REFERENCE TO ACCOMPLISHING TASKS WITHIN "X" MONTHS FROM THE COMMENCEMENT OF THE PROJECT ?

THANK YOU IN ADVANCE.

*G. Angeletti*  
G. ANGELETTI.



TK



Commission of the European Communities  
Att.: Dr. Angeletti  
DGk XII/G-1  
200, rue de la Loi

B-1049 BRUSSELS  
BELGIA

Your ref.:

Our ref.:  
TK/MAA/O-8728

Lillestrøm, 30 November 1990

Dear Dr. Angeletti,

GRAPHIC PRESENTATION OF PROJECT PHASES

Thank you very much for your telefax dated 13 November 1990. I hereby enclose the requested diagramme.

Respectfully,

for Terje Krognæs  
Research scientist  
May Aarnodt

Enclosures: 1

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

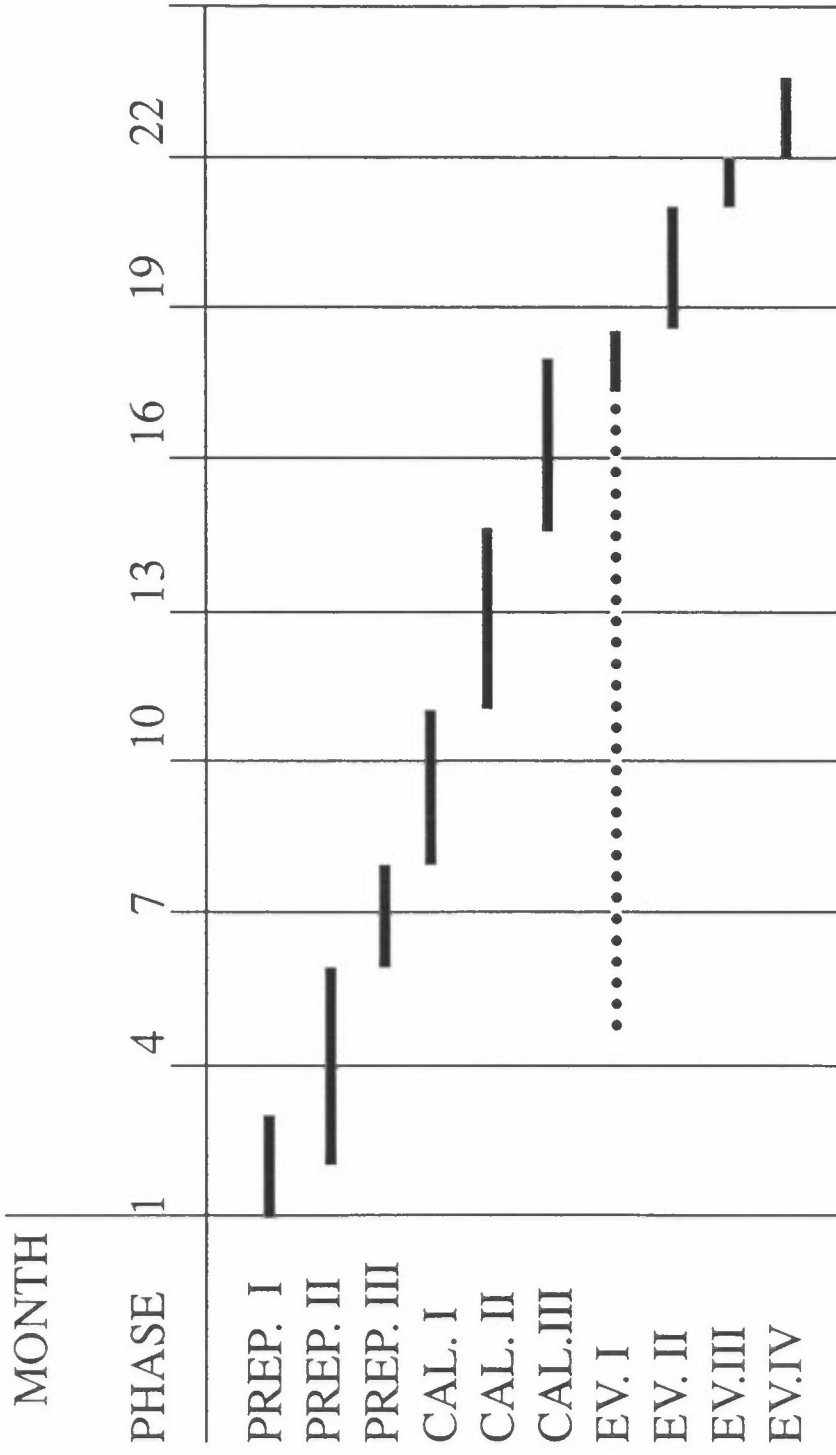
Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 3 30 83 27









**ENCLOSURE 11**

The CEC requested that the Swedish participant  
was formally named a subcontractor under NILU



T  
K  
V

COMMISSION  
OF THE  
EUROPEAN COMMUNITIES

DIRECTORATE-GENERAL  
FOR SCIENCE, RESEARCH  
AND DEVELOPMENT  
JOINT RESEARCH CENTRE

Brussels, 14 December 1990  
XII/E-1 GA/jl

Environment and  
Non-Nuclear Energy

TELEFAX TO T. KROGNES  
Norwegian Institute for Air Research  
Faxn. : 06 - 81.92.47

Dear Dr Krognès,

Re : Proposal PL900289, Contract EV4V-CT90-0222

A contract can be established with you as coordinator only in the case that the Swedish participant accepts to be Sub-Contractor of your organization. This is because Sweden has not signed an agreement with the Commission for the 4th Environmental Programme 1986 - 1990.

This implies that your financial contribution will include the Swedish one (40,000 ECU) and, of course, you will have to refund them afterwards.

We need confirmation by fax urgently, before the end of this week, that this is acceptable to you and Sweden, otherwise, the funding will be withdrawn.

Yours sincerely,

G. ANGELETTI





Commission of the European Communities  
Att.: Dr. Angeletti  
DG XII/G-1  
200, rue de la Loi

B-1045 BRUSSELS  
BELGIA

Your ref.:

Our ref.:  
TK/MAA/O-90081

Lillestrøm, 17 December 1990

Dear Dr. Angeletti,

RE.: PROPOSAL PL 900289, CONTRACT EV.44-CT90-0222

Thank you for your fax of 14 December, which came to our attention on 17 December.

The Swedish participant has now agreed to operate as a subcontractor under NILU, and will confirm this to you by telefax today. NILU also accepts this arrangement.

Yours sincerely

Harald Dovland  
Director

Terje Krognnes  
Research scientist

Enclosures: 0

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 3 30 83 27

AGREEMENT OF CO-OPERATION  
BETWEEN  
NORWEGIAN INSTITUTE FOR AIR RESEARCH (NILU)  
AND  
SWEDISH ENVIRONMENTAL PROTECTION AGENCY  
ATMOSPHERIC RESEARCH DIVISION (ARD)

- 1) NILU is the co-ordinator of the project "Peroxy Acetyl Nitrate intercalibration", contract No. EV4V-CT90-0222 under the Commission of the European Communities (CEC), DG XII/B/2. ARD is formally connected to the project as a subcontractor under NILU.
- 2) The participation of ARD is described in "ANNEX I, WORK PROGRAMME, STEP PL900289" which is a part of the contract EV4V-CT90-0222.
- 3) The estimated CEC contribution to the co-ordinator according to the contract EV4V-CT90-0222 is 100 000 ECU (one hundred thousand European Currency Units). 40% of the actual CEC contributions to NILU will be paid to ARD for their participation. The payments to ARD will be made according to the instalments received from the CEC, as described in article 4 of the contract EV4V-CT90-0222. ARD must submit cost statements to NILU, as described in article 10.2 of the same contract.
- 4) A copy of the contract EV4V-CT90-0222 with Annex I (WORK PROGRAMME), Annex II (GENERAL CONDITIONS) and Annex IIIa (SPECIAL CONDITIONS FOR EFTA PARTICIPANTS) is enclosed with this agreement. Any changes or amendments made to these documents shall also apply to the present agreement.

Lillestrøm, 8.2.1991

Stockholm, 13.2.1991

Norwegian Institute for Air Research

Swedish Environmental Protection Agency



*Anne Dahl*

Ann Dahl

**ENCLOSURE 12**

Information from NILU to the participants  
dated 20 December 1990







Sent to:

Dr. J. Rudolph, FKA Jülich,	Fax: 095-49-2461 615346
Dr. S.A. Penkett, Univ. of East Anglia	" 095-44-603 507719
Dr. J.C.Th. Hollander, TNO	" 095-31 15 616812
Dr. P. Oyola, Nat.Env. Protection Board	" 095-46 155 62073
Dr. R. Schmitt, Meteorologieconsult gmbh	" 095-49 6174 61436
Prof. G. Toupance Univ. of Paris XII-Val de Marne	" 095-33 1 42 077012
Dr. P. Ciccioli, Istituto Sull'Inquinamento Atmosferico	" 095-39 6 9005849
Dr. G. Serrini, Joint Research Centre, Ispra Establishm.	" 095-39 332 789222
Dr. S. Glavas, Univ. of Patras	" 095-30 61 991996
Dr. Rosalia Fernández Patier, Ministerio de Sanidad y Consumo	" 095-34 1 6380613
Dr. Ø. Hov U i B	" 05-960566

Your ref.:

Our ref.:

Lillestrøm, 20 December 1990

TK/MAA/0-90081

Dear colleagues,

STEP PAN INTERCALIBRATION

I apologize for the delay after the last information dated 3 September 1990. After some political and technical complications, we will soon sign the contract with the Commission.

In September I informed that a formal statement of participation would be requested from each participant. This procedure will not be used, as it would actually have defined all participants as sub-contractors under NILU. The Swedish participant is now a sub-contractor under NILU, all the others are contractors.

The project has been assigned the contract number EV4V-CT90-0222. The documents will arrive in the contract division in early January 1991. If the contract division finds errors in the information supplied from the participants, some further delay is possible. If no such problems arise, each participant will receive the contract for signature in the end of February 1991. The work programme will have the same length as the current version, but will be revised to allow for holidays etc.

I sincerely hope that the participants already now will start preparing the documents to be submitted in the first project phase.

I wish all participants Merry Christmas and a Happy New Year.

Yours sincerely

for Terje Krognæs  
Research scientist  
*May Aamodt*  
Enclosures: 0

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 3 90 83 27

344

**ENCLOSURE 13**

Letter from the CEC requesting that  
the accompanying contract copy should be  
signed by the participants





COMMISSION  
OF THE EUROPEAN  
COMMUNITIES

DIRECTORATE-GENERAL FOR SCIENCE,  
RESEARCH AND DEVELOPMENT  
JOINT RESEARCH CENTRE

XII/B/2

Research Contract Policy  
and Management Division

Brussels, 18.01.1991

TK  
001834

XII/90  
JR/pc

NILU			
Mottatt:	22/1.91	Rekv/EX	Jnr.nr. m.?
Postmøtet:	Saksbehandler: HD		
Til info		TK	PB

REGISTERED

Norwegian Institute for  
Air research  
Attn.: Mr. Harald Dovland  
Director  
Postboks 64

N - 2001 LILLESTROM

Ref. : Contract n° EV4V-CT90-0222  
Your Scientific responsible: T. Krognes  
(Inquiries: please contact Mr. Ruiz, tel. 2/2363006)

Dear Mr. Dovland,

I enclose two copies of the above contract and I shall be grateful if you will return the two copies duly signed by the appropriate officer to the following address:

Commission of the European Communities  
DG XII/B/2  
rue de la Loi, 200  
1049 Brussels

Copies of the contract have also been sent to the other partners for signature, and, in accordance with the contract, the Commission will not sign any copy of the contract until the other partners have signed and returned their copies. One copy of your signed contract, together with the certified pages of the signed copies of the other partner, will be returned to you after signature by the Commission.

In view of the need for all signed copies to be identical, will you please confirm, when you return the contract, that no modifications have been made to the text of the document. Any modifications proposed should be discussed with the Commission through the coordinator for the project.

The enclosed form requesting financial and other details to assist in the management of the contract should be completed and returned with the contract.

To assist the Commission with its budgetary arrangements, will you please ensure that the copies of the contract are returned as quickly as possible. If the copies of the contract are not returned within one month of their receipt, the Commission may determine not to proceed with its proposed financial contribution to the project.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'J.R. Ruiz', with a long horizontal flourish extending to the left.

J.R. RUIZ

Enclosure - Contract management information

## CONTRACT MANAGEMENT INFORMATION

### Signature and Return of the Contract

Please note:

- two copies of the contract must be signed where indicated after Article 12 of the contract.
- no modification must be made to the contract (except in respect of the name of the signatory on page 1) without prior discussion with the responsible Commission administrative official indicated on the letter enclosing the copies of the contract for signature.
- the signed copies must be returned within one month together with:
  - the Contract Management Information form attached duly completed in full, in capital letters. This document is very important. Any changes during the project should be communicated to the Commission.
  - confirmation that no modifications have been made to the text of the contract.
- any reason(s) for the delay in the signature of the contract should be notified immediately to the responsible Commission administrative official. The Commission may determine not to proceed with its proposed financial contribution to the project if the signed copies of the contract are not returned within one month.

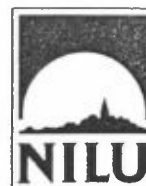




**ENCLOSURE 14**

On 21 February the participants were informed of  
the status of the contract signature process





Sent to:

Professor G. Toupance, Univ. Paris XII-Val de Marne, France  
 Dr. P. Ciccioli, Istituto Sull'Inquinamento Atmosferico, Italy  
 Dr. G. Serrini, JRC, Ispra Establishment, Italy  
 Dr. S. Glavas, Univ. of Patras, Greece  
 Dr. Rosalia Fernández Patier, Minist. de Sanidad y Consumo, Spain  
 Dr. R. Schmitt, Meteorologieconsult GmbH, Germany  
 Dr. P. Oyola, National Environmental Protection Board, Sweden  
 Dr. J.C. Th. Hollander, TNO, The Netherlands  
 Dr. S.A. Penkett, Univ. of East Anglia, United Kingdom  
 Dr. J. Rudolph, KFA Jülich, Germany  
 Dr. Øystein Hov, Univ. of Bergen, Norway

Your ref.:

Our ref.:  
 TK/MAA/0-90081

Lillestrøm, 20 February 1991

### STEP PAN INTERCALIBRATION

#### 1. CONTRACT

DGXII in the CEC has now received 5 of the contracts duly signed. Contracts returned from TNO, CNR and CNSA are not yet registered by DGXII. These institutions should check that the contracts have actually been signed and mailed. If any participants should need more time before signing, please contact the co-ordinator.

If the contracts are not further delayed, the "Operative Commencement Date" of the project will be 1 March 1991.

#### 2 PAYMENTS

Articles 4 and 5 of the contract describes the instalments that will be paid by the CEC, and the cost statements and progress reports they will be based on. The more restrictive scheme originally proposed by the co-ordinator was not required by the CEC.

The advance payment of 180.000 ECU (45% of the total CEC contribution) will be available on the co-ordinators bank account 6-8 weeks after the Operative Commencement Date. The co-ordinator will immediately thereafter pay 45% of each participant's CEC contribution to the respective participants. This amounts to:

NILU (the co-ordinator)	27.000 ECU
ARD	18.000 ECU
UPAR12.LP	20.700 ECU
UPAT.DC	21.600 ECU
TNO.MT.D	20.700 ECU
METEOCONS	31.500 ECU
CNR.ITA	20.700 ECU
INSISC.CNSA	19.800 ECU

Enclosures:

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
 P.O.Box 64  
 N-2001 LILLESTRØM, Norway

Office address:  
 Elvegt. 52  
 LILLESTRØM

Telephone: (06) 81 41 70  
 Telefax : (06) 81 92 47  
 Telex : 74854 nilu n

Bank: 5102.05.19030  
 Postgiro: 0813 3308327

The co-ordinator has no information of the present status of national economic contributions to the respective participants. If a participant will have difficulties in starting the project by 1 March and carrying out the first 12 months of research with the advance payment given above, please notify the co-ordinator.

### 3 PHASE PREP.I

With Operative Commencement Date 1 March 1991, the Easter holiday will appear in project week 4. Therefore, the mailing of all documents to NILU is postponed from project week 4 to project week 5. The documents of this phase include reprints of all relevant publications by the participants, and documentation written for and during this STEP project. The co-ordinator will copy all documents and bind them into a single volume internal report. If any single document is too bulky (more than 60 pages), please send 11 copies of that document.

The co-ordinator is well aware that we all would prefer to publish our most successful work. However, in this phase of the PAN intercalibration we also need to inform each other of the problems and difficulties we have experienced. Please keep this in mind when preparing the documents.

### 4 PHASE PREP.II

The second phase is expected to start in project week 6.

### 5 SEMINAR AND STRATEGY MEETING

A 3 day meeting has been planned in project week 9, which will unfortunately be divided in the middle by 1 May. The co-ordinator proposes that the meeting should be held at NILU on 14-16 May. The participants may also take a day off and stay in Oslo on 17 May, which is the Norwegian national day. I will be delighted to show you the city and the celebrations. Please inform me whether the proposed meeting dates are suitable.

Further information will be forwarded when the contract has been signed by the CEC.

Best regards



Terje Krognnes

**ENCLOSURE 15**

Letter from TNO dated 1 March 1991, briefly explaining the need for a co-operation agreement. The agreement text enclosed here has the addresses of the participants included. Otherwise it is identical to the text distributed on 1 March



TNO Environmental and  
Energy Research

Laan van Westenank 501  
P.O. Box 342  
7300 AH Apeldoorn  
The Netherlands

Telex 39395 tnoap nl  
Fax +31 55 41 98 37  
Phone +31 65 49 34 93

Norwegian Institute for Air Research  
Attn. Mr. T. Krognæs  
P.O. Box 64  
N-2000 LILLESTRØM  
Norway

Direct dialling  
+31 55 493891

Date  
March 1, 1991

Our ref.  
12528/112104-05080.875/SGH

Subject

Co-operation Agreement relating to  
EEC-contract n<sup>o</sup> EV4V-CT90-0222

Your letter

Dear Mr. Krognæs,

On request of Mr. Hollander we herewith answer your above-mentioned letter.

You are right in stating that the EEC-contract covers extensive conditions with regard to its subsidy. However, the arrangement with regard to one important matter, viz. the responsibility of each Contractor, the Commission leaves in the hands of the Contractors.

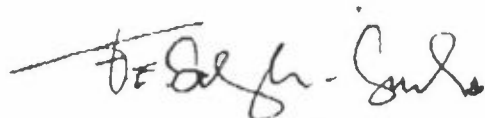
TNO thinks it necessary on behalf of all the Contractors, to have this matter dealt with in a co-operation agreement.

We have studied your comments on the draft agreement we earlier proposed and made up a revised draft which we enclose.

We should highly appreciate to hear from you soon if NILU is willing to enter into this agreement.

By copy of this letter we ask the other Contractors for their willingness.

Yours faithfully,  
Department of Business Policy and Marketing



Fernande E. Schotborgh  
Contracts

Enclosures

1  
Netherlands organization for  
applied scientific research

Based on the necessity for a sustainable development of  
society, TNO Environmental and Energy Research aims at  
contributing through research and advice, to adequate





# DRAFT

91/137/M&E

CO-OPERATION AGREEMENT  
RELATING TO THE AGREEMENT WITH THE EEC, DGXII NUMBER EV4V-CT90-0222

This Agreement, made and entered into this ..... day of ..... 1991 by and between the Parties:

1. NORSK INSTITUTT FOR LUFTFORSKNING (NORWEGIAN INSTITUTE FOR AIR RESEARCH), having its seat at Lillestrøm, Norway, hereinafter referred to as: "NILU";
2. UNIVERSITÉ PARIS XII, LABORATOIRE DE PHYSIOCHEMIE DE L'ENVIRONNEMENT, having its seat at Val de Marne and Creteil-Paris, France, hereinafter referred to as: "UPAR12.LPE";
3. UNIVERSITY OF PATRAS, DEPARTMENT OF CHEMISTRY, SECTION OF ANALYTICAL, ENVIRONMENTAL AND APPLIED CHEMISTRY, having its seat at Patras, Greece, hereinafter referred to as: "UPAT.DC";
4. NEDERLANDSE ORGANISATIE VOOR TOEGEPAST-NATUURWETENSCHAPPELIJK ONDERZOEK TNO, (Netherlands Organization for Applied Scientific Research), having its seat at the Hague, and its main place of business at Delft, The Netherlands, hereinafter referred to as: "TNO";
5. METEOROLOGIE CONSULT GmbH, having its seat at Glashuetten, Germany, hereinafter referred to as: "METEOCONS";
6. CONSIGLIO NAZIONALE DELLE RICERCHE, ISTITUTO SULL'INQUINAMENTO ATMOSFERICO, having its seat at Rome, Italy, hereinafter referred to as: "CNR.IIA";

and

7. INSTITUTO DE SALUD CARLOS III, CENTRO NACIONAL DE SANIDAD AMBIENTAL, having its seat at Madrid, Spain, hereinafter referred to as: "INSISC.CNSA";

WHEREAS:

- The Parties hereto have committed themselves to carry out jointly a research agreement, further referred to as: "the Contract" for the European Economic Community, further referred to as: "the EEC", for research of Peroxyl acetyl nitrate intercalibration under number EV4V-CT90-0222 on behalf of the Directorate General XII, Science Research and Development, hereinafter referred to as: "DGXII";
- under the Contract the Parties act as a consortium, whereby they are jointly responsible for carrying out the research commissioned to them thereunder and whereby they are jointly liable towards the EEC and third parties for claims out of default or other causes;
- the Parties need to apportion their respective responsibilities and liabilities to the Parties in conformity with the part of the research under the Contract to be carried out by each of them;

HAVE AGREED AS FOLLOWS:1. CONTRACTORS REPRESENTATION

- 1.1 It is agreed between the Parties that NILU will act as intermediary representative for all the Parties hereto in accordance with article 5.3 of the Contract, further referred to as "the Coordinator".
- 1.2 The Coordinator assumes overall responsibility for the liaison between the Parties and DGXII in respect of the administration of the Contract and the prompt payment of each amount received through the EEC to the Party on whose behalf payment was received.
- 1.3 Each Party will enable the Coordinator to carry out its duties as such under the Contract.

2. RESPONSIBILITIES

- 2.1 Each Party hereby undertakes to promptly supply the Coordinator with all such information or documents as the Coordinator may require in connection with the Contract to fulfil its obligations.
- 2.2 Each Party undertakes to use all reasonable endeavours to perform and enable the other Parties to perform in time the tasks and work packages assigned to each Party under the Contract and to prepare and present the reports to be submitted to DGXII.
- 2.3 Each Party shall be responsible and liable towards the other Parties for the acts and omissions of itself, its employees and persons used by it excluding indirect or consequential losses, such as loss of profit, revenue, contracts or the like.

3. LIABILITY

- 3.1 When the EEC, DGXII, according to the provisions of the Contract, claims any reimbursement or payment of damages from one or more of the Parties, each defaulting Party shall be liable to the other Parties and will hold these harmless for its defaults up to the amount of its share of the total Contract price as shown in annex II of the Contract and any excess shall be apportioned between all the Parties pro rata to their share of the work under the Contract.
- 3.2 Each Party shall be solely liable for any loss, damage or injury to third Parties inclusive of the EEC, resulting from the implementation of its part of the Contract and will protect and indemnify the other Parties against such claims.

3.3 In the event of a substantial breach by a Party of its obligations under this Agreement or the Contract, the other Parties are entitled to take a joint decision to terminate its contribution to the Contract with the defaulting Party after written notice and the default not being remedied within a reasonable time, which decision will be notified to DGXII for approval. In case of approval of aforesaid termination by DGXII the defaulting Party will no longer be entitled to its rights under the Contract and the remaining Parties may assign the task of the defaulting Party to one or several bodies chosen by the remaining Parties and acceptable to DGXII, preference being granted to one of the remaining Parties. Such defaulting Party shall be liable for all cost and damages arising out of its breach of its obligations up to the amount of its share of the Contract.

4. LANGUAGE

All communications between the Parties and the reports drawn up for DGXII will be written in the English language.

5. LAW AND DISPUTES

5.1 This Agreement will be governed by the law of Belgium.

5.2 All disputes arising from the Agreement or from any further Agreements resulting therefrom will be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce.

Agreed in sevenfold between the Parties on the date first mentioned above.

NILU

UPAR12.LPE

Signature	_____	Signature	_____
Name	_____	Name	_____
Function	_____	Function	_____

UPAT.DC

TNO

Signature	_____	Signature	_____
Name	_____	Name	_____
Function	_____	Function	_____

TNO

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Function \_\_\_\_\_

METEOCONS

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Function \_\_\_\_\_

CNR.IIA

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Function \_\_\_\_\_

INSISC.CNSA

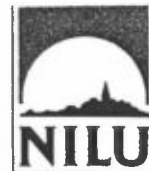
Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Function \_\_\_\_\_



**ENCLOSURE 16**

On 13 March NILU accepted the co-operation agreement  
text and informed the participants of this





Sent to:

Telefax:

Professor G. Toupance, Univ. Paris XII-Val de Marne, France	095-33 142077012
Dr. P. Ciccioli, Inst. Sull'Inquinamento, Atmosph., Italy	095-39 69005849
Dr. G. Serrini, JRC, Ispra Establishment, Italy	095-39 332789222
Dr. S. Glavas, Univ. of Patras, Greece	095-30 61991996
Dr. Rosalia Fernández Patier, Minist. de Sanid. y Cons., Spain	095-34 16380613
Dr. R. Schmitt, Meteorologieconsult, GmbH, Germany	095-49 617461436
Dr. P. Oyola, Nat. Env. Prot. Board, Sweden	095-46 15563073
Dr. J.C.Th. Hollander, TNO, The Netherlands	095-31 15616812
Dr. S.A. Penkett, Univ. of East Anglia, UK	095-44 603507719
Dr. J. Rudolph, KFA Jülich, Germany	095-49 2461615346
Prof. Øystein Hov, Univ. of Bergen, Norway	05-96 05 66

Your ref.:

Our ref.:  
TK/MAa/O-90081

Lillestrøm, 13 March 1991

FORMALIZED AGREEMENT OF CO-OPERATION

NILU was informed on 27 February that the TNO administration requires a written agreement of co-operation between all the STEP PAN INTERCALIBRATION participants before they will sign their copy of contract EV4V-CT90-0222 with the CEC.

NILU did not initially see the need for such an agreement, as we will all be bound directly to the CEC through a very detailed contract. TNO proposed an agreement text to NILU and the other participants on 1 March. NILU finds that this text clarifies responsibilities and liabilities among the project participants.

NILU therefore today returns a copy of the agreement text, with NILUs signature, to TNO. The other participants are also urged to do the same, and to acknowledge this immediately to TNO, att.: Ms Fernande E. Schotborgh.

Presently, DGXII has received signed copies of the STEP contract from all participants, except TNO and CNR. If these two contracts are returned to the CEC immediately (they should not need to be further delayed by the co-operation agreement) the Operative Commencement Date will probably be 2 April 1991.

Best regards

*Paal Berg*  
Paal Berg  
Head of administration

*Terje Krognnes*  
Terje Krognnes  
Scientist

Enclosures: 0

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 0813 3308327







TNO  
Laan van Westenenk 501  
P.O. Box 342

7300 AH APELDOORN  
THE NETHERLANDS

Att.: Ms Schotborgh

Your ref.:

Our ref.:  
TK/MAa/O-90081

Lillestrøm, 13 March 1991

Dear Ms Schotborgh

CO-OPERATION AGREEMENT

Please find enclosed our signed copy of your co-operation agreement (referring to the STEP PAN intercalibration, CEC contract No. EV4V-CT90-0222). We have also informed the other participants by telefax dated 13 March that we have accepted your text. We are grateful for the work you have done in this matter.

The word "harmless" is used in article 3.1 of the text with the meaning "unharmful". To our knowledge "harmless" in everyday language means "not harmful" or "not dangerous". We are surprised if the legal jargon interpretation really deviates so much from "normal" English. However, we do not see any danger of misinterpretation of the article, and find this small disagreement to be rather harmless.

We hope that you now are able to send the signed STEP contract to DGXII. Please also send copies of the signed co-operation agreements to NILU after they are returned from the respective participants.

Yours sincerely

Harald Dovland  
Director

---

Terje Krognnes  
Scientist

Enclosures: 1

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 0813 3308327



**ENCLOSURE 17**

On 15 March 1991 the Greek participant asked for further information about the co-operation agreement.

The information was given by TNO on 27 March



UNIVERSITY OF PATRAS

DEPARTMENT OF CHEMISTRY  
SECTION OF ANALYTICAL, ENVIRONMENTAL AND APPLIED CHEMISTRY  
PATRAS, GREECE

1.TNO

Attn: F. Schotborgh

OUR FAX 061-991996

2.NILU

Attn: T.Krognes

15.3.1991

I have received the FAX with the cooperation agreement proposed by TNO.

Our administration has strong reservations for signing up such an agreement as in general does not see the purpose of it. Since each one of us is responsible towards the Commission why should we be liable to each other.

I must point out that an irresponsible act of one contractor or its inability to carry out the proposed and specified in the contract work, does not affect the work of the others. Only NILU can affect the work of the other contractors and in that respect it is only NILU that should unilaterally committ itself to the rest of the contactors by an agreement of the type proposed by TNO.

Specifically on the proposed agreement I would like to point out:

1. On page 2 under "WHEREAS".

Why should one contractor be "...liable... towards third parties for claims out of default or other causes" that result from another contractor?

2. Also under "WHEREAS" third paragraph

What is the purpose of this paragraph. Please explain in detail, citing if possible an example.

3. Under "RESPONSIBILITIES" paragraph 2.2

This paragraph concerns only NILU, because the rest of the contractors depend on NILU to coordinate, prepare, distribute and analyze standards etc.

4. Also under RESPONSIBILITIES, paragraph 2.3.

Why is it necessary to include this paragraph since the work of one contractor does not affect the work of the other contractors?

5. Maybe I do not understand paragraph 3.1, but it seems to contradict paragraph 3.2.

How can one contractor be "...solely liable..." according to paragraph 3.2, and at the same time "... any excess claims be apportioned between all parties according to paragraph 3.1?

6. On paragraph 3.3.

Who determines the "substantial breach" of a Party's obligations?

Who defines the "reasonable time"?

A unanimous decision should be taken by all contractors on these matters.

7. Paragraph 5.2 is totally unnecessary!

Sincerely,

*S. Glavas*

S. Glavas

Schoemakerstraat 97  
P.O. Box 6070  
2600 JA Delft  
The Netherlands

Telex 38071 zptno nl  
Fax +31 15 62 73 13  
Phone +31 15 69 69 00

University of Patras  
Department of Chemistry  
Section of Analytical, Environmental,  
and Applied Chemistry  
Att. Mr S. Glavas  
Patras - 26110  
Greece

Direct dialling

Date  
March 27, 1991

Our ref.  
91 BZV 337

Your letter

Subject  
Cooperation agreement EEC-Contract EV4V-CT90-0222  
(91/137/M&E)

Dear Mr Glavas,

We received a copy of your facsimile message on the above agreement dated March 18, 1991 in good order.

This sort of cooperation agreement is very often used between the EEC-partners under contracts of DGXII and DGXIII to apportion the joint liability under the EEC-contract between the parties.

Under Article 2 of Annex II of the EEC-Contract the Parties are Jointly and Severally Responsible towards the EEC. This means that when one Party fails or makes a default under the EEC-Contract, all the other parties may be held responsible towards the EEC for the whole damage. Without a cooperation agreement such excessive liability is not covered for the part not caused by a party but nevertheless held responsible on base of these EEC-conditions. Therefore the standard policy of TNO is not to sign any multi-party EEC-contracts when this liability is not covered by a cooperation agreement. Most of TNO's partners in other EEC-contracts share this opinion.

On base of the above we have to answer your questions as follows:

-Second whereas:

The liability emanates from the EEC-contract conditions as explained above.

-Third whereas:

The meaning of this paragraph is to make clear the necessity of this agreement. Examples are all other cooperation agreements in joint EEC-contracts.

#### Article 2.2

This paragraph concerns also the other contractors as they have to bring NILU in a position to fulfil its obligations by carrying out these tasks and reporting as agreed. A default of these obligations can constitute a joint liability for the other parties.

Enclosures





Article 2.3

As the liability is joint and several and as the EEC-contract is one project the work of one contractor or default therein can very well affect the work or liability of another party.

Article 3.1 and 3.2

These paragraphs are not contradictory but complementary. Article 3.1 apportions the liability out of contract and Article 3.2 the liability out of tort. Claims can be excessive, i.c. exceeding the remunerations to be received, and therefor excesses have also to be apportioned.

Article 3.3

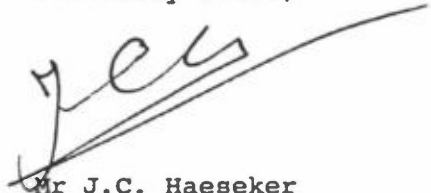
In case of conflicts all terms such as "substantial breach" or "reasonable time" will be determined by the deciding court of justice or arbitrators. In case of conflict there can not be any unanimous decision otherwise there would be no conflict.

Article 5.2

Especially in international contracts with a lot of parties from different countries this clause cannot be missed, as only in this way the contract will always be construed by the same court in the same way, thus not causing any differences between the parties by way of different opinions in different cases on the same matters.

Please let us or NILU know that in this light you can accept the cooperation agreement in order that we can sign the EEC-Contract.

Sincerely Yours,

A handwritten signature in dark ink, appearing to read 'J.C. Haeseker', is written over a horizontal line. The signature is slanted upwards to the right.

Mr J.C. Haeseker  
CONTRACTS OFFICE

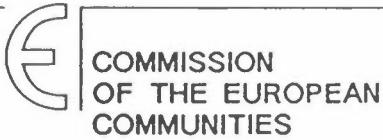
cc: NILU, T. Krogers  
M&E, Mevr. Schotborgh-Salomons

**ENCLOSURE 18**

The project contract signed by all  
the participants and the CEC



Tu



COMMISSION OF THE EUROPEAN COMMUNITIES

24.04.1991 015367  
Brussels, JR/vb

DIRECTORATE-GENERAL FOR SCIENCE,  
RESEARCH AND DEVELOPMENT  
JOINT RESEARCH CENTRE

XII/B/2

Research Contract Policy  
and Management Unit

REGISTERED

NORWEGIAN INSTITUTE  
FOR AIR RESEARCH  
Attn. of Mr. H. Dovland  
P.O. Box 64  
N - 2001 LILLESTRØM

Re: Contract n° EV4V-CT90-0222  
(Inquiries: please contact Mr. Ruiz, tel. 2/2363006)

Dear Mr. Dovland,

I enclose for your files one copy of the above contract duly signed on behalf of the Commission.

I certify that the other contractor has signed identical versions of the contract and that these have also been signed by the Commission on the same date. In this respect, I enclose, for your information, a certified copy of the signed page of each contract.

A note of guidance on the administrative and financial management of the contract, together with a copy of the contract, will be sent to your financial manager.

Yours sincerely,

J.R. RUIZ

NILU	
Mottatt:	Jnr.nr
29/4-91 987	0-90081
PC/Ansvar:	Saksbehandler:
J. Ruiz	TK
TR info	HD PB KAS

TU

**CONTRACT**

**No. EV4V-CT90-0222**

**between**

**The European Economic Community**

**and**

**Norwegian Institute for Air Research**

**Université Paris XII**

**University of Patras**

**Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek**

**Meteorologie Consult GmbH**

**Consiglio Nazionale delle Ricerche**

**Instituto de Salud Carlos III**

The European Economic Community (hereinafter referred to as "the Community"), represented by the Commission of the European Communities (hereinafter referred to as "the Commission"), represented for the purpose of the signature of this contract by the Director General for Science, Research and Development, or its authorised representative,

of the one part,

and

Norwegian Institute for Air Research , (hereinafter referred to as "the Coordinator"), established in Norway, represented for the purpose of the signature of this contract by its authorised representative,

Université Paris XII , Laboratoire de Physiochimie de l'Environnement ,  
(hereinafter referred to as "UPAR12.LPE"), established in France, represented for the purpose of the signature of this contract by its authorised representative,

University of Patras , Department of Chemistry , Section of Analytical, Environmental and Applied Chemistry ,  
(hereinafter referred to as "UPAT.DC"), established in Greece, represented for the purpose of the signature of this contract by its authorised representative,

Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek , Hoofdgroep Maatschappelijke Technologie. Delft ,  
(hereinafter referred to as "TNO.MT.D"), established in the Netherlands, represented for the purpose of the signature of this contract by its authorised representative (Voorzitter Raad van Bestuur),

Meteorologie Consult GmbH ,  
(hereinafter referred to as "METEOCONS"), established in the Federal Republic of Germany, represented for the purpose of the signature of this contract by its authorised representative,

Consiglio Nazionale delle Ricerche , Istituto sull'Inquinamento Atmosferico,  
(hereinafter referred to as "CNR.IIA"), established in Italy, represented for the purpose of the signature of this contract by its authorised representative,

Instituto de Salud Carlos III , Centro Nacional de Sanidad Ambiental ,  
(hereinafter referred to as "INSISC.CNSA"), established in Spain, represented for the purpose of the signature of this contract by its authorised representative,

(hereinafter referred to as "the Contractors"), acting jointly and severally as specified in Article 2 of Annex II to the contract,

of the other part,

WITH A VIEW to work being carried out in respect of research and technological development and demonstration in pursuance of the Protection of the environment programme adopted by the Council of Ministers of the European Communities

HAVE AGREED AS FOLLOWS:

### Article 1 - Scope of contract

- 1.1 The Contractors hereby undertake to carry out the work set out in Annex I and entitled "Peroxyl acetyl nitrate intercalibration" (hereinafter referred to as "the Project").
- 1.2 Subject to any special conditions in Article 10, or any amendments or exclusions by the succeeding Articles, the conditions governing this contract are specified in the Annexes which shall form an integral part of this contract. In the case of conflict between anything contained in Annex I and any other provision of this contract, the latter shall prevail.
- 1.3 The Contractors may arrange for the Project to be partially carried out by third parties. The approval of the Commission to certain third party arrangements may be required in the circumstances set out in Article 3 of Annex II.
- 1.4 The Coordinator shall assume overall responsibility for the submission of all documents on behalf of the Contractors to the Commission and for general liaison between the Contractors and the Commission. All general communications to and from the Contractors with the Commission shall be through the Coordinator.

### Article 2 - Duration

- 2.1 The duration of the Project shall be 24 months from the first day of the month following the signature of this contract by all parties (hereinafter referred to as "the Operative Commencement Date").
- 2.2 Any delays in carrying out the Project shall be notified to the Commission. The Contractors or the Commission may terminate this contract in the circumstances set out in Article 8 of Annex II.

Article 3 - Financial contribution of the Commission

3.1 The total estimated allowable costs of the Project excluding recurrent costs to be borne by the Contractors and Associated Contractors using additional costs, are 900,000 ECU ( Nine Hundred Thousand European Currency Units).

The estimated breakdown of the total allowable costs of the Project between the Contractors and Associated Contractors, if any, is specified in the table which follows the signatures to this contract.

3.2 The Commission shall contribute

- 50% of the actual full costs of the Project allowable in accordance with Articles 8, and 22 to 33 of Annex II, for those Contractors and Associated Contractors who will use this cost basis, as indicated in the table referred to in Article 3.1, and
- 100% of the actual additional costs allowable in accordance with Articles 8, 34 and 35 of Annex II, for those Contractors and Associated Contractors who will use this cost basis, as indicated in the table referred to in Article 3.1,

up to 400,000 ECU ( Four Hundred Thousand European Currency Units) .

3.3 Subject to Article 32 of Annex II, indirect taxes, sales taxes and customs duties shall be allowable costs of the Project where they are not recoverable by any other means or their elimination is not practicable.

Article 4 - Payments by the Commission

4.1 The Commission shall pay its financial contribution by instalments in ECU as follows:

- an advance payment of 180,000 ECU ( One Hundred Eighty Thousand European Currency Units)
- periodic payments in respect of the cost statements to be submitted in accordance with Article 5 of this contract
- a retention shall be made of 10% of the total financial contribution. This retention shall be released after approval by the Commission of all the reports and any other deliverable required by this contract, and a consolidated cost statement.



- 4.2 Periodic payments shall be made within two months of the approval of the progress reports and associated cost statements.  
Conversions from national currencies to ECU, and payments, shall be made by the Commission in accordance with payment procedures specified in Article 21 of Annex II.
- 4.3 All payments by the Commission shall be made to the Coordinator which shall be responsible for immediately transferring the appropriate amount to each Contractor.

Article 5 - Cost statements

- 5.1 Three signed copies, including the original, of periodic cost statements shall be submitted to the Commission each 12 months after the Operative Commencement Date.
- 5.2 A consolidated cost statement shall be submitted within 3 months of the completion, cessation or termination of the work financed by the Commission.
- 5.3 Cost statements shall comply with the requirements of Articles 36 and 37 of Annex II, and shall be in the format, and contain the details, set out in part H of Annex II.
- 5.4 Cost statements shall be submitted by each Contractor through the Coordinator and be appended to the corresponding periodic progress report.

**Article 6 - Reports and Deliverables**

6.1 The following reports shall be submitted to the Commission in 3 copies in the English language by the Coordinator, such reports consolidating and summarising the work and results, to the extent specified in the Annexes, of all the Contractors :

- periodic progress reports each 12 months after the Operative Commencement Date;
- a final report within two months of the completion, cessation or termination of the work financed by the Commission. Details of the potential for the exploitation or commercialisation of the results shall be provided no later than the final report.

6.2 Reports and results shall be treated in confidence except for the publication of agreed reports. The contents and format of the various reports required, and publication and approval procedures, are set out in Articles 6 and 7 of Annex II.

6.3 Deliverables are any significant outputs of the Project to be submitted in accordance with Annex I.

**Article 7 - Ownership and exploitation of results**

7.1 The results arising from this contract shall be the property of the Contractors in accordance with Part B of Annex II. The Contractors shall grant to each other licences and user rights for the results, and shall also grant licences to third parties, against conditions specified in Annex II, for the use of the results for research undertaken within Community RTD programmes. Appropriate action shall be taken by the Contractors to exploit or commercialise the results in conformity with the interests of the Community. Part B of Annex II sets out this framework for the ownership, exploitation and commercialisation of the results.

7.2 Contractors may conclude a cooperation agreement on the application of Annex II as between themselves, or an Associated Contractor, if any, but not in a manner incompatible with its basic principles, and any such agreement shall, in particular in respect of the application of Article 17.2, and the third indent of Article 17.5, comply with competition rules made under the Treaty of the European Economic Community.

Article 8 - Technical Verification and Audits

8.1 The Commission shall be granted reasonable access to sites where the Project is being carried out, and shall be given appropriate assistance for any technical verification and evaluation of the Project as set out in Article 5 of Annex II.

8.2 During the period specified in Article 39 of Annex II, the Commission may carry out audits of all costs of the contract.

Article 9 - Amendments, Variations or Additions

The provisions of this contract and its annexes may be amended or supplemented only by means of a written agreement duly signed by authorised representatives of the contracting parties.

Article 10 - Special conditions

10.1 The specific Community Research Programme

(a) Conditions for EFTA participants

The special conditions in Annex III/A shall apply to the Specific Community Research Programme from which this contract emanates.

For the purposes of Articles 1.2 and 1.3 of Annex III/A, the status of participation by organisations from non Community States in the Specific Community Research Programme from which this contract emanates is, at the date of the submission of this contract for signature, specified in the table below:

State (1)	Nature of Participation (2)
AT, CH, IS, SE	P
FI, NO	A

(1) AT = Austria, CH = Switzerland, FI = Finland, IS = Iceland, NO = Norway, SE = Sweden.

(2) P = project participation only - Article 1.2 and part B of Annex III/A applies.

A = full association to programme - Article 1.3 and part C of Annex III/A applies.

(b) Have made rights

There shall be added at the end of the first paragraph of Article 17.2 of Annex II the sentence "Before any agreement is reached with a third party by a Contractor or a Complementary Contractor in the application of the aforesaid rights, the other Contractors shall themselves have a prior right to agree to undertake such manufacturing and marketing on fair and reasonable terms and conditions."

10.2 The Project

(a) Subcontracts

In accordance with Article 3.2 (b) of Annex II subcontract(s) may be concluded with the following for the parts of the work specified in Annex I:

- Swedish Environmental Protection Agency

The said subcontractor shall submit the summary cost statement specified in Part H of Annex II without supporting financial annexes.

- (b) The allowable costs and the cost statements of the following participant in the Project which has concluded a Framework Agreement with the Commission on a full cost basis shall conform with the relevant Framework Agreement :

- Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek

10.3 The special conditions specified in this Article shall prevail over other conditions specified in this contract.

Article 11 - Applicable law and entry into force of the contract

11.1 This contract shall be governed by the law of Belgium.

11.2 This contract shall enter into force only after the last signature of the contracting parties in accordance with the formalities in Article 11 of Annex II.

Article 12 - Annexes

The Annexes to this contract are:

Annex I	Work Programme
Annex II	General Conditions
Annex III/A	Special conditions for EFTA participants



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

Status:

Date:

A handwritten signature in black ink, appearing to be "K. ...".

10. IV. 1991

For the Contractor,

( the Coordinator

)1

Signature:

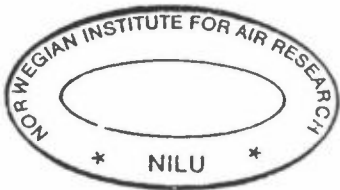
Status:

Date:

A handwritten signature in black ink, appearing to be "A. ...".

Director

15. FEB. 1991



1 Insert abbreviated Contractor's entity title used in the contract



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

Status:

Date: 10. IV. 1991

A handwritten signature in black ink, consisting of several stylized, overlapping loops and lines.

For the Contractor,

( UPAR 12. UPE

)1

Signature:

Status:

Date:

25/1/91

Le Président de l'Université  
Paris Val-de-Marne

A handwritten signature in black ink, appearing to read "Daniel Laurent".

Daniel LAURENT

Certified copy  
of the original

 ..... 03. IV. 1991



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

A handwritten signature in black ink, appearing to be "H. J. ...".

Status:

Date: 10. IV. 1991

For the Contractor,

( UPAT.DC

)1

Signature:

A handwritten signature in black ink, appearing to be "Ioannis Panaretos", overlaid on a circular stamp. The stamp contains the text "UNION PATRONS" and a logo.

Ioannis Panaretos

Status: Vice Rector

Date: 13.02.1991



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

Status:

Date:

A handwritten signature consisting of several loops and a long horizontal stroke.

10. IV. 1991

For the Contractor,

(Netherlands Organization for  
Applied Scientific Research TNO)<sup>1</sup>

Signature:

Status: Member of the Board Date: March 25, 1991

A handwritten signature with a checkmark at the end.

Dr J.H. Parmentier

A handwritten signature with a large initial 'F'.

Status: Chairman of the Board

Ir F.E. Mathijssen Gerst

<sup>1</sup> Insert abbreviated Contractor's entity title used in the contract





Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

A handwritten signature consisting of several loops and a long horizontal stroke.

Status:

Date: 10. IV. 1991

For the Contractor,  
 meteorologie consult gmbh  
 ( Auf der Platt 47  
 Postfach 17  
 6246 GLASHÜTTEN 1

)1

Signature:

A handwritten signature that appears to be "R. Schmitt".

Status:

Proj. Manager  
 Mangig Kreiter.

Date: 4.2.91



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

A handwritten signature in black ink, appearing to be "H. S.", written over a horizontal line.

Status:

Date:

10. IV. 1991

For the Contractor,

( CNR - IIA

)1

Signature:

Dott. Ivo Allegrini

A handwritten signature in black ink, appearing to be "Ivo Allegrini".

Status:

Direttore  
C.N.R. - Istituto  
sull'Inquinamento Atmosferico

Date:

26.2.1991



Done at Brussels,  
in duplicate  
in the English language

For the Commission,

Signature:

*[Handwritten signature]*

Status:

Date: 11-II-91  
10. IV. 1991

For the Contractor,

(  
Signature:

*[Handwritten signature]*  
A circular stamp with the text "INSTITUTO DE SALUD CARLOS III" around the perimeter and "DIRECCION" at the bottom.

)1

Status:

Date: 11-II-91

EL DIRECTOR DEL INSTITUTO  
DE SALUD CARLOS III

1 Insert abbreviated Contractor's entity title used in the contract

Table - Estimated breakdown of the Total Allowable Costs

	Cost (1) Basis	Cost ECU	Contribution ECU
The Coordinator	FC	416,244	100,000
UPAR12.LPE	AC	46,000	46,000
UPAT.DC	AC	48,000	48,000
TNO.MT.D	FC	92,000	46,000
METEOCONS	FC	152,039	70,000
CNR.IIA	AC	46,000	46,000
INSISC.CNSA	FC	100,000	44,000
		-----	-----
Total		900,283 (2)	400,000
Rounded to		900,000 (2)	400,000

- (1) FC = full costs, AC = additional costs
- (2) Excluding recurrent costs to be borne by contractors/associated contractors using the additional cost basis.
- (3) Not included in total costs for EC contribution.

## ANNEX I

### WORK PROGRAMME STEP-PL900289

#### 1) TITLE: PAN INTERCALIBRATION

#### 2) OBJECTIVES:

##### 2.1 GOALS:

- Enable the participants to calibrate a PAN (Peroxy Acetyl Nitrate) standard with errors within  $\pm 10\%$  of the true concentration.
- Enable the participants to calibrate a PAN GC (Gas Chromatograph) with errors within  $\pm 10\%$  of the true sensitivity (given a "true" standard concentration).
- Create a European platform for comparison of PAN data.
- Provide a 1 year set of well-calibrated ambient PAN data from a European network of measurement stations.
- Publish results in reviewed journals.

Due to the complexity of the task and the technical difficulties involved in handling PAN standards, the actual percent value of error limits obtained is not essential. The most important point is the ability to state that all significant error sources have been identified and controlled.

##### 2.2 PROJECT METHODOLOGY

Intercalibration experiments will take place in the local laboratories of each participant. Each participant will perform PAN standard calibrations

and PAN GC calibrations with the methods normally used in the respective laboratories, and with additional methods needed for comparison purposes. All experiments will include "local" PAN standards and PAN standards distributed from the co-ordinator. Samples of the distributed PAN standards will be returned to the co-ordinator for recalibration.

A work schedule is enclosed in chapter 4.3. In phase PREP.I all methods presently in use in the participating laboratories will be described and evaluated, with an emphasis on technical difficulties and error sources. The participants will meet in the co-ordinator's premises in the end of this phase to exchange information and agree on details in the project strategy.

The participants will in phase PREP.II acquire additional methods needed for intercomparison of results. The documentation exchanged during PREP.I will be essential for this phase.

Phase PREP.III is a trial distribution of PAN standards. Technical difficulties may be expected in all participating laboratories. The participants will adjust their methods and resolve problems as well as possible before the start of phase CAL.I.

Three identical experiments comprising PAN standard distribution and intercalibration experiments, are named CAL.I to CAL.III. In phase CAL.I some technical problems must still be expected to remain. The last two intercalibration phases are the minimum required to demonstrate that the results are reproducible. This may be achieved even if one or two participants should have permanent technical problems.

### 2.3 MILESTONES

The six project phases PREP.I, PREP.II, PREP.III, CAL.I, CAL.II and CAL.III will be concluded with internal reports to be distributed to the participants from the co-ordinator. Each participant will contribute to each of these internal reports.

At the conclusion of phase EV.I all participants report their ambient PAN measurement data collected throughout the project.

Phase EV.II ends with the distribution of draft versions of publications from the appointed editors. Phase EV.III ends with the submission of suggestions from the other participants. Phase EV.IV ends with the submission of publications to appropriate journals. If a journal should request a revision before publication, the appointed editor will inform the other participants and receive their comments before finalizing the revision.

### 3) ROLE OF PARTICIPANTS

All participants will perform the work as outlined in the work schedule (chapter 4.3). The specific methods and special tasks of each participant are listed below.

#### 3.1 NILU, THE CO-ORDINATOR

As co-ordinator NILU will handle administrative and economic details of the project. NILU will supply pre-calibrated PAN standards and distribute these to the other participants. NILU will recalibrate samples of these standards returned from the participants after use. NILU will compile and distribute internal reports concluding each project phase. The method for synthesis of PAN has presently not been selected. NILU will purify all PAN solutions by HPLC (High Performance Liquid Chromatography) and calibrate them by ion chromatographic analysis of  $\text{Ac}^-$  after hydrolysis. This method will be used as reference method for PAN standard calibration through the project.

NILU will calibrate a PAN GC with PAN standards injected into tedlar bags with a known volume of clean, dry air. This will initially be the reference method for GC calibration.

NILU will construct a PAN calibrator based on a permeation tube containing a PAN solution. Such a dynamic device avoids the largest error sources in a static method (like a fixed volume PAN dilution in a tedlar bag). If the results are satisfactory, the participants may choose to select this calibrator as reference GC calibration method.

NILU will construct a new PAN GC and install it at NILU in Lillestrøm, Norway. This instrument will be used for the GC calibration experiments, and it will supply ambient PAN data that will be reported to the project.

The co-ordinator will visit all participants once during each of the two project years to exchange information, and to see the practical realisation of the experiments. If a sufficiently stable PAN analyzer is available in 1992, the co-ordinator will bring such an instrument round to the participants for field intercomparison tests.

### 3.2 UNIVERSITY OF PARIS XII

Will synthesise PAN by two different methods. Gas phase UV (Ultra Violet) irradiation of  $\text{NO}_2$ /acetaldehyde, and liquid phase nitration of peroxyacetic acid. Will test the eventual need for purification by HPLC of the produced liquid PAN solutions. Will experiment with dynamic and static dilutions of PAN in gas phase. Will analyse PAN in gas phase by IR (InfraRed) absorption. Will analyse PAN standards with spectrophotometry of  $\text{NO}_2^-$  (Saltzman) and with ion chromatography of nitrite or acetate after alkaline hydrolysis. Will compare direct injection of PAN solution into GC with injection of PAN solution into tedlar bag. Will compare calibrations with dry and moist matrix air.

Dr. G. Toupance of the University of Paris XII will be the editor of the publication "PAN measurements near large cities and in background areas in central Europe".

The PAN analyzer in Creteil will be used for the above GC calibration tests, and will supply ambient PAN data for the project period.

### 3.3 UNIVERSITY OF PATRAS

Will analyse PAN in gaseous mixtures by conversion to NO (Nitrogen Oxide) on a molybdenum converter followed by a chemiluminescence NO instrument. This method will be compared to alkaline hydrolysis of gaseous PAN followed by ion chromatographic analysis of nitrite/nitrate and of acetate ions. Will also calibrate the distributed liquid PAN solutions by ion chromatography.



A PAN GC will be acquired for the project and installed on the Patras university grounds. This instrument will be used for GC calibration experiments, and it will supply ambient PAN data during the project period.

#### 3.4 TNO

Will synthesize PAN in liquid solution. Will calibrate "local" and distributed PAN solutions with FTIR and with ion chromatography (both nitrate and acetate analysis). Will calibrate GC with both standards, using static dilutions in tedlar bags. TNO is the only participant that routinely uses moist nitrogen carrier gas for the PAN GC.

TNO will set up a fully automated PAN analyzer. The instrument will be used for the GC calibration experiments, and it will provide ambient PAN data during the project period.

TNO will take editor responsibility for the publication "PAN contribution to photo-oxydant budget over the North Sea region".

#### 3.5 METEOROLOGIECONSULT

A PAN analyzer with detection limit 5 ppt is presently operated in Jülich. A PAN analyzer with cryo-trapping and 1 ppt detection limit is presently operated in Tenerife. Data from these two instruments will be made available for the project. To facilitate the intercalibration experiments two new instruments with similar characteristics will be constructed. These instruments furthermore will be mobile. Various GC calibration methods will be compared on all four instruments. These methods include liquid injection of dilute PAN solutions and a permeation system with a photochemical reactor that dynamically produces PAN with a controlled concentration.

PAN standards will be calibrated by ion chromatographic determination of acetate, nitrite and nitrate after hydrolysis. They will also be calibrated by a colorimetric technique (modified Griess-Sabzmann), and by

chemoluminescent techniques (analysis of  $\text{NO}_2$  after thermal decomposition of PAN, and of  $\text{NO}_y$  by catalytic conversion to  $\text{NO}$ ). Both local and distributed PAN standards will be used.

### 3.6 ARD

A PAN analyzer stationed at Aspvråten (at the coast south of Stockholm) will be dedicated to the project. This instrument will supply ambient PAN data to the project.

ARD will calibrate PAN standards with ion chromatographic analysis of acetate and nitrate after hydrolysis, and by a chemiluminescent technique after conversion to  $\text{NO}$ . ARD will calibrate the PAN GC by injection of standard into a tedlar bag, by a PAN diffusion calibrator (in co-operation with NILU), and by direct comparison to the  $\text{NO}$ /chemiluminescent technique.

Dr. P. Oyola of ARD will take editor responsibility for the publication "A comparative study of PAN calibration methods", which will sum up the final conclusions of the project.

### 3.7 CNR

CNR will construct a PAN generator that synthesises PAN dynamically by UV irradiation of  $\text{NO}_2$ /acetaldehyde (same principle as utilized by University of Paris XII). CNR will also use the calibrator to produce PPN by substituting propionaldehyde for acetaldehyde. CNR will experiment with methods for removing excess  $\text{NO}_2$  and  $\text{O}_3$  without destroying PAN.

The PAN output from the calibrator, and the PAN concentration of the distributed samples, will be measured by alkaline hydrolysis and ion chromatography. Infrared Spectroscopy will be used for qualitative determinations of PAN, and for control of sample purity.

A PAN GC will be calibrated with the different PAN standards. The GC will provide ambient PAN data during the project period.

Dr. Ciccioli of the CNR will be editor of the publication "Regional cycles of PAN in the Mediterranean area".

### 3.8 CNSA

The CNSA will synthesize PAN in liquid solution (method of T. Nielsen, 1982), and purify the standard on HPLC. The CNSA will calibrate both "local" and distributed PAN standards by alkaline hydrolysis followed by ion chromatographic analysis of nitrite/nitrate. An automated PAN analyzer (Carlo Erba) will be operated at the Majadahonda premises west of Madrid. The instrument will be calibrated with both "local" and distributed PAN standards.

Ambient PAN data will be collected throughout the project period and reported.

## 4) DELIVERABLES AND WORK SCHEDULE

### 4.1 DELIVERABLES:

The internal reports concluding the first six project phases will be submitted to the commission. During phases EV.I to EV.IV, four publications will be prepared. These will give an overview of the results and complete technical information of the most successful methods tested during the project. The planned publications are:

"A comparative study of PAN calibration methods". This will be an extract of the internal reports, and will be the main document of the intercalibration project. It should both describe the work and sum up the conclusions. Editor Dr. P. Oyola, ARD.

"Regional cycles of PAN in the Mediterranean area". Includes measurement data from Patras, Ispra, Rome and Madrid + background data from Tenerife. Editor Dr. Ciccioli, CNR.

"PAN contribution to photooxidant budget over the North Sea region". Includes data from Delft, Jülich, Oslo, England (Penkett) and Stockholm. Editor Dr. Hollander, TNO.

"PAN measurements near large cities and in "background areas" in central Europe". Includes data from Paris, Delft and Jülich. Editor Dr. Toupance, U.P.XII.

#### 4.2 INTERDEPENDENCE BETWEEN TASKS:

The participants will work independently, and will not be affected by minor technical problems outside their own laboratories. The participants will report both positive and negative results in accordance with the schedule below.

If major technical problems should be encountered with the reference methods, normal project execution will be halted. All participants will in this case co-operate to resolve the problem before resuming project operation with a revised time schedule.

#### 4.3 WORK SCHEDULE:

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
1-4	PREP.I	Participants consolidate existing "local" methods and report these in detail to coordinator. Publication reprints and detailed descriptions of methods and difficulties forwarded to NILU by express mail before end of week 4.
6-8	PREP.I	NILU compiles internal report.
9	"	All participants travel to NILU for a 3 day seminar and strategy meeting. Participants prepare short presentations of their methods and planned contribution to the project. ;
5-18	PREP.II	Participants prepare additional methods to be used for intercomparisons. Participants report results and send by express mail to NILU before end of week 18.

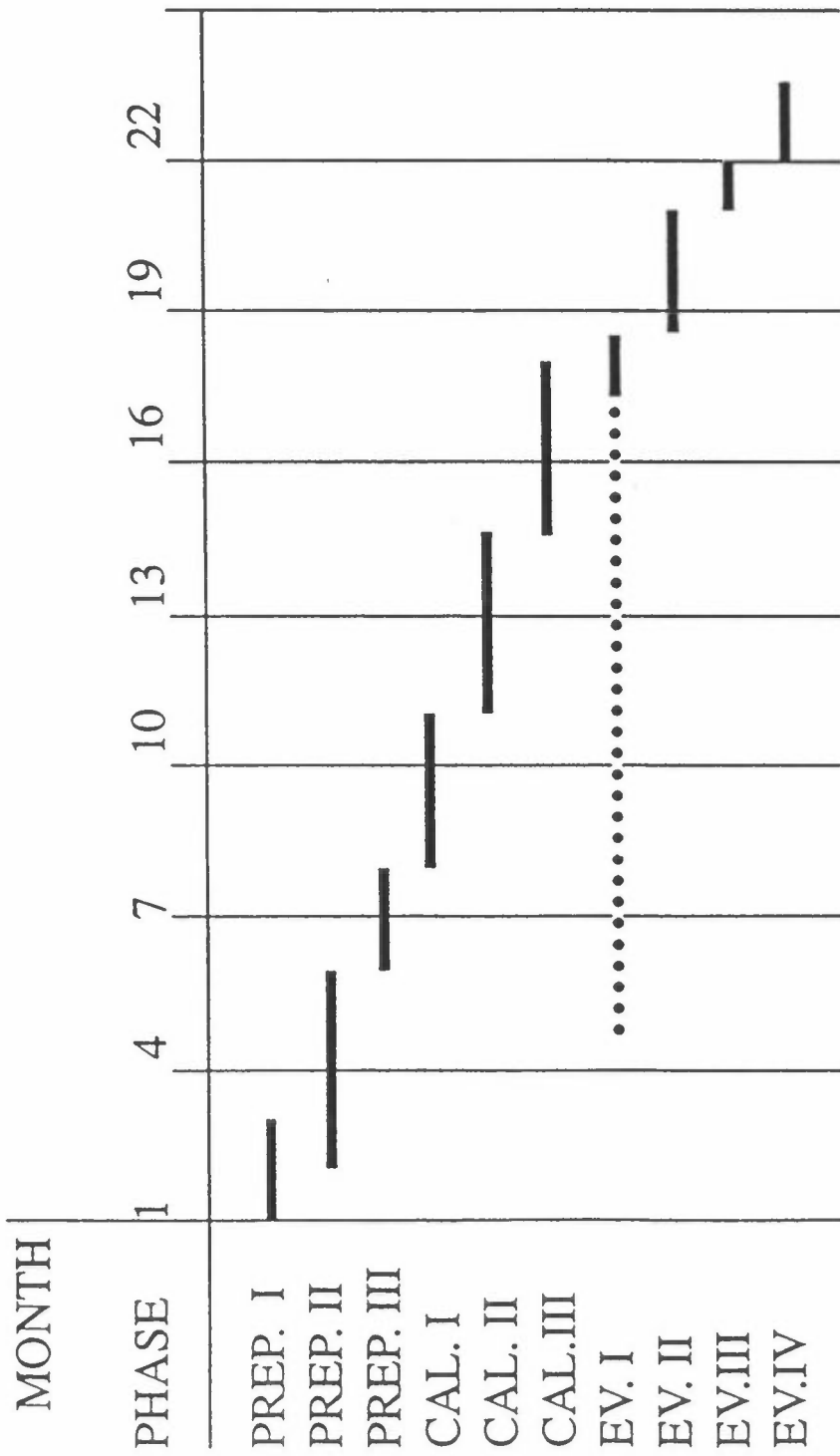
PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
9-19	PREP.II	NILU prepares standards and methods for trial distribution.
20-21	"	NILU compiles internal report and sends to participants at the end of week 21.
22	PREP.III	Trial standard distribution.
23-25	"	Participants calibrate distributed standards and local standards with at least two methods. Participants calibrate GC with different standards and different application methods.
26-27	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 27.
25-27		Summer holiday at NILU.
28-31	"	Summer holiday for participants.
29-31	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 31.
32-33	CAL.I	NILU prepares standards for distribution.
34	"	First intercalibration standard distribution.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
35-37	CAL.I	Calibrations (as in weeks 23-25).
38-40	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 40.
42-44	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 44.
45-46	CAL.II	NILU prepares standards.
47	"	Second intercalibration standard distribution.
48-50	"	Calibrations.
51-52		Christmas holiday.
53-55	"	Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 55.
57-59	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 59.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
60-61	CAL.III	NILU prepares standards.
62	"	Third intercalibration standard distribution.
63-65	"	Calibrations.
66-67	CAL.II	Approximate position of Easter holiday. Participants report results. The report and PAN standard samples packed with carbon ice, are returned to NILU by air express parcel at the end of week 70.
68-70		
72-74	CAL.III	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 74.
71-76	EV.I	Participants calibrate all ambient PAN data from weeks 1-70, tabulate them and perform quality control. Each participant sends his data to all other participants by express mail at the end of week 76.
77-78	EV.II	Editors begin work on publications.
79-82		Summer holiday.
83-86	"	Editors complete draft versions of publications and distribute to participants at the end of week 86.

PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY
88-92	EV.III	Participants evaluate draft reports and send their suggestions to the editors by express mail at the end of week 92.
-98	EV.IV	Editors submit publications to appropriate journals.





## ACTUAL COST CONTRACT

### ANNEX II

#### GENERAL CONDITIONS

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## ANNEX II

### GENERAL CONDITIONS

#### Part A - Implementation of the Work

##### Article 1 - Progress of the Work

- 1.1 The Contractors shall provide the personnel, facilities, equipment and materials reasonably and practically necessary for the proper performance of the work under the contract.
- 1.2 The Contractors shall use their reasonable endeavours to achieve the objectives of the research and shall exercise all reasonable skill, care and diligence in the performance of the work under the contract.
- 1.3 The Contractors shall be responsible for taking the necessary steps to obtain any permit or licence required for the performance of the work under the contract by any laws and regulations in force in the place or places where the work is to be carried out. Contractors shall inform the Commission immediately if they are unable to obtain any such permit or licence. The contracting parties shall jointly review the effect of this situation on the performance of the contract and shall, if necessary, take appropriate measures after consulting one another.
- 1.4 Each of the Contractors shall notify the Commission, through the Coordinator, of the commencement of the work under the contract and shall inform the Commission without delay of the completion or the cessation of the work, or of any event, or circumstances liable to significantly affect the performance of the contract.
- 1.5 Each of the Contractors shall notify the Commission, through the Coordinator, of the person designated to be in direct charge of the performance of its work under the contract. This person and any other personnel specified by name in Annex I may be replaced only by others possessing the necessary competence and with the written approval of the Commission. The Commission shall not unreasonably withhold such approval and shall respond to any written request within one month of its receipt, failing which it shall be deemed to have approved the request.
- 1.6 If the performance of this contract is prevented or restricted by Force Majeure, the Contractors so affected shall be released for the duration of the Force Majeure, or such other period agreed between the contracting parties as being reasonable in all the circumstances, from their contractual obligations directly affected by the Force Majeure provided that the Contractors concerned shall:
  - (a) give prompt notice to the Commission and the other contracting parties of the causes of the Force Majeure;

- (b) use all reasonable endeavours to avoid or remove such causes of non performance;
- (c) continue the performance of the contract as soon as such causes are removed.

The contracting parties shall take all reasonable steps to minimise the effects of Force Majeure on the performance of the work under the contract and shall, if necessary, agree on appropriate measures to be taken.

- 1.7 The Contractors shall notify the Commission, through the Coordinator, in writing at least two months before the expiry of the contract of any need for an extension in time to complete the work under the contract. The notification shall specify the duration of, and the reason for, the proposed extension. The Commission shall consider any such request, but may reject it on reasonable grounds.
- 1.8 In carrying out the work under the contract, each of the Contractors shall, wherever applicable in accordance with Council Decision 87/95/EEC of 22 December 1986 relating to standardisation in the fields of information technology and telecommunications, use or purchase equipment or software conforming with, or taking account of, adopted European standards, or in their absence, international standards.

##### Article 2 - Joint and Several Responsibility

Where the contract is to be carried out by more than one Contractor the Contractors shall be jointly and severally liable to the Commission for any failure on the part of any of them to discharge their responsibilities. The Contractors shall discharge the responsibilities of defaulting or withdrawing Contractors to such extent as is reasonable in all the circumstances through the completion of the work under this contract by themselves or with the assistance of other third parties agreed in accordance with Articles 3 or 8 of this Annex, unless the contract is terminated in accordance with Article 8 of this Annex. A Contractor shall not be liable in respect of a defaulting Contractor:

- (a) to transfer information or grant licences or user rights for any information or patents under part B of this Annex, or
- (b) to provide the detailed financial information under Parts F and H of this Annex, or for incorrect or incomplete financial information, or
- (c) to make any reimbursement under Article 8.4 if it can show to the reasonable satisfaction of the Commission that it has not contributed to the default and has complied with Article 1.4 of this Annex.

## Article 3 - Participation of Third Parties

### 3.1 For the purposes of this Article:

"an associated contract" means an agreement between a Contractor and any legal entity (hereinafter referred to as "an associated contractor") for the latter to carry out work under this contract for that Contractor and to contribute financially to such work.

"a subcontract" means an agreement, other than an associated contract, between a Contractor and a legal entity for the latter to carry out work under this contract for that Contractor.

### 3.2 Each of the Contractors may enter into associated contracts or subcontracts, but shall not thereby be released from its obligations and responsibilities to the Commission under the contract. Articles 3.3 to 3.6 of this Annex shall apply to all such arrangements, and the following provisions shall apply to specific arrangements as indicated:

#### (a) Associated contracts

Subject to Article 3.4, an associated contract shall be entered into only with the prior written agreement of the Commission.

The draft associated contract shall be submitted to the Commission by recorded delivery or registered letter. Within one month of receiving the draft contract, the Commission shall submit its observations or notify the relevant Contractor of the need for a longer period to submit its observations, failing which it shall be deemed to have agreed to the conclusion of the associated contract.

An associated contractor shall be granted fair and reasonable terms in the associated contract for its contribution to the work and the associated contract shall conform with the following principles:

- an appropriate proportion of the advance payment of the Commission under Article 21 of this Annex shall be paid without undue delay by the relevant Contractor to the associated contractor, or arrangements of similar effect shall be agreed with the associated contractor;

- the associated contractor shall comply with the financial requirements specified in parts D to H inclusive of this Annex in respect of the costs for its part of the work under the contract;

- the associated Contractor shall, having regard to its contribution to the contract:

- be granted appropriate rights and benefits, and

- be required to comply with similar obligations of the Contractors,

in respect of the ownership, exploitation, commercialisation, and licences or user rights of results generated from the contract in accordance with part B of this Annex;

- the associated Contractor shall comply with the requirements of this contract relating to confidentiality and the submission and publication of reports.

#### (b) Subcontracts

Subcontracts may be concluded without the written agreement of the Commission where:

- (i) sufficient details of the subcontracting have been included in the contract, or

- (ii) the value of an unforeseen subcontract does not exceed 100,000 ECU and does not fundamentally affect the conditions under which the contract was concluded, and the total collective value of all unforeseen subcontracts of a Contractor does not exceed 20% of its estimated total allowable costs of the work under the contract, or one million ECU, whichever is the lower.

Subject to Article 3.4, written agreement of the Commission is required in any other circumstances for any subcontracts. Where such agreement is required, the relevant Contractor shall submit by recorded delivery or registered letter details of the names of the subcontractors to carry out any work, the work to be carried out, and the estimated cost of such work. The Contractor shall, if requested by the Commission, submit to it drafts of any contracts with such subcontractors. The Commission shall respond in writing to any written request submitted to it within two months of its receipt, or within two months of the receipt of the draft subcontract, failing which it shall be deemed to have agreed to the conclusion of the subcontract.

#### (c) Associated contracts and subcontracts

Any agreement by the Commission to the conclusion of an associated contract in accordance with Article 3.2(a) hereof, or any implicit or explicit agreement to a subcontract in accordance with Article 3.2(b) hereof shall be without prejudice to, and shall not affect, the responsibilities of the Contractors regarding the financial management of the contract.

3.3 The relevant Contractor shall impose on any subcontractors and associated contractors the same obligations as apply to itself with respect to any rights held by the Commission under this contract concerning the results of the work performed or monitoring the performance of the work or any other technical or financial control. Each of the Contractors has the responsibility to ensure that its subcontracts and associated contracts contain adequate provisions to protect the rights of the Commission and the Commission shall only be deemed to have agreed to

deviate from its rights if, and only to the extent, it has agreed explicitly in writing.

- 3.4 Notwithstanding the provisions of Article 3.2 the agreement of the Commission shall not be required for any associated contract or subcontract to be entered into between a Contractor and one of its Affiliated Companies within the meaning of Article 14(2) of this Annex provided that the latter is incorporated or established within the Community and that the associated contract or subcontract:

will not result in increased costs for the relevant Contractor or a delay in the work under the contract, and

does not affect the conditions under which the contract was concluded.

Nevertheless, the Commission shall be notified by the Contractor of any associated contract or subcontract entered into between that Contractor and one of its Affiliated Companies within the meaning of Article 14(2) of this Annex. The notification shall include the nature of the affiliation or association and the value of the subcontract or the associated contract.

- 3.5 Written agreement of the Commission is required for subcontracts or associated contracts with third parties situated outside the Community, provided that where such third parties are directly or indirectly ultimately owned or controlled, within the meaning of Article 14(2)(a) of this Annex, by a company incorporated and resident in, and subject to the law of, a Member State of the Community, the Commission shall be deemed to have agreed to the conclusion of the subcontract or the associated contract unless it submits observations to the contrary to the Contractor within one month of the receipt of written notification of the proposed arrangement.

- 3.6 The provisions of this Article shall not apply to orders for materials, equipment and services which are incidental to, or calculated to facilitate the execution of, the contract and placed in the normal course of business in accordance with the internal procedures and rules of the Contractors.

#### Article 4 - Agreements between Contractors

Nothing contained in any agreement between the Contractors themselves or between the Contractors and third parties shall affect the obligations of the Contractors to the Commission under the contract.

#### Article 5 - Technical Verification of the Work

- 5.1 Each of the Contractors shall, without delay, supply the Commission, through the Coordinator with any information reasonably requested by the Commission in respect of the implementation of the work programme under the contract. Contractors shall make available to the Commission appropriate technical and financial documents to verify that the said work programme is being or has been carried out, and, if necessary, these

documents may be verified at the place where they are normally kept by the Contractors.

- 5.2 Each of the Contractors shall give employees of the Commission and, subject to Article 5.3 of this Annex, persons authorised by the Commission reasonable access to sites or premises where the work under the contract is being carried out and to all documents concerning the said work.

- 5.3 Where the Commission uses experts for technical assistance it shall take all reasonable steps to ensure the prevention of unauthorised disclosure or use of confidential information by such experts. The Commission shall notify the Contractors sufficiently in advance of the names, functions and employers of such experts and shall take reasonable account of any objections made for reasonable and appropriate industrial and commercial reasons by the Contractors to protect their legitimate interests.

- 5.4 Each of the Contractors undertakes during the performance of, and at the completion of, the work under the contract to take part and assist to a reasonable extent, and be represented by appropriate technical and management personnel, in meetings called by the Commission for the purpose of reviewing the said work. At the discretion of the Commission other contractors and experts may also take part at such meetings subject to the provisions specified in Article 5.3 of this Annex.

#### Article 6 - Reports

##### Submission of Reports

- 6.1 Contractors shall, from the Operative Commencement Date of the contract, submit the following reports to the Commission for approval:

- (a) if, and as, specified in the contract, management reports summarising the activities completed, activities started, resources employed, deviations or probable deviations from the planned work schedule or cost, recommended actions to correct such deviations, planned activities for the next reporting period, and, if necessary, a revised project plan.
- (b) periodic progress reports within one month of the end of each reporting period specified in the contract setting out the progress of the work, resources employed, the results obtained, deviations from the work plan during the reporting period and modifications to the work plan for the succeeding period. Within one month of receiving the report, the Commission shall submit its observations on the report or notify the Contractors of the need for a longer period to submit its observations, failing which it shall be deemed to have approved the report.

At the end of each 12 months the relevant periodic progress report shall contain information to enable the Commission to evaluate the progress and cooperation in respect of the work under the contract, and in respect of the contract and any set of related research projects performed by different

contractors in the framework of a Community Research Programme.

- (c) a final report detailing all the work carried out and the results obtained under the contract. This report shall contain a summary of the full report including the objectives and the conclusions of Contractors. A draft of this report shall be submitted within 2 months of the actual completion or cessation or termination of the work, and in any event, no later than 2 months following the date by which the work is to be completed under the contract. The Commission shall submit its observations on the draft within 2 months of receiving it, failing which it shall be deemed to have approved the draft. The report in its definitive form, taking into account any observations of the Commission, shall be submitted within 1 month of the receipt of such observations or the acceptance of the draft by the Commission.
- (d) no later than the definitive final report, a separate report specifying how each of the Contractors intend to exploit or commercialise the results of the work, and all industrial and intellectual property rights in the results, including, but not limited to, inventions made, patents applied for, intended to be applied for, or obtained, registered designs and similar statutory rights in the results. Having particular regard to Article 19.2 of this Annex, applications which, in the opinion of the Contractors, could be made to protect such property rights, but which are not intended to be made, shall be indicated to the Commission. If a Contractor considers that it is desirable for the Commission to take action in accordance with Article 19.2, it shall inform the Commission in writing of any such applications which it has commenced to protect such property rights and which for any reason it subsequently wishes to abandon, before abandoning the application.
- (e) edited periodic progress reports for the periods specified in the contract, and a final report, in a suitable form for publication and describing the objectives, the work performed and the results obtained. Separate reports shall not be required where the Contractors and the Commission agree that the full periodic progress report or final report is suitable for publication.

6.2 The Contractors shall submit any additional reports or any other deliverables specified in the contract.

6.3 Any rules reasonably set out and notified by the Commission in respect of the layout of any reports shall be observed, such rules shall generally relate to all projects within the same Community Research Programme or part of such a Programme. Each report shall be of a suitable quality to enable its direct reproduction.

6.4 Each of the Contractors shall communicate, through the Coordinator, reports and other information required by the Commission, as far as possible and wherever suitable, through EUROKOM or such other electronic

mail facilities notified by the Commission to Contractors as being appropriate.

- 6.5 Subject and without prejudice to the provisions in Part B of this Annex the Contractors shall be deemed to have discharged their obligations in respect of the performance of the work under the Contract after the approval, or deemed approval in accordance with Article 6.1, by the Commission of all the reports and any other deliverables required by the contract.

## Confidentiality of Reports

6.6 The Commission and each of the Contractors shall keep all reports confidential, other than those reports specified in Article 6.1(e), which the Commission may publish, or other reports to be transmitted or published by agreement, provided that:

- (a) the Commission may submit the reports to other Community Institutions on a confidential basis to the extent properly required by them;
- (b) the Commission and the Contractors shall agree, having regard to the major business interests of the Contractors and the interests of the Community, a policy for the limited and restricted dissemination, if appropriate, of such reports on a confidential basis to the governments of Member States of the Community;
- (c) the Commission may, with the specific agreement of the Contractors, transmit the reports on a confidential basis to a non Community State or an international organisation in the framework of an agreement or convention for the exchange of information concluded by the Community with such State or organisation.

## Article 7 - Confidentiality, Publicity and Information relating to Results

7.1 The Commission shall be entitled to publish information by any means in respect of:

- the title and objective of this contract,
- the total estimated allowable costs,
- the financial contribution of the Commission,
- the duration of the work and the names of the project managers of the Contractors as designated by Article 1.5 of this Annex,
- the names of the legal entities carrying out work under contract.

unless the Contractors at the time of the signature of this contract, object for reasonable and appropriate industrial and commercial reasons.

7.2 Except as expressly authorised by, and subject to any obligations of, this Contract, the contracting parties undertake to keep confidential facts, information, knowledge, documents or other matters communicated to them as confidential through the performance of this

contract, and Foreground Information and Foreground Patents as defined by Articles 14(3) and (4) of this Annex, the disclosure of which may be prejudicial to one of the other parties provided that this Article shall not apply to such facts, information, knowledge, documents or other matters which a party can show:

- (a) were at the time of the receipt published or otherwise generally available to the public,
- (b) have after receipt by the receiving party been published or become generally available to the public otherwise than through any act or omission on the part of the receiving party,
- (c) were already in the possession of the receiving party at the time of receipt without any restrictions on their disclosure,
- (d) were rightfully acquired from others without any undertaking of confidentiality imposed by the disclosing party,
- (e) were developed independently of the work under the contract by the receiving party.

7.3 The Commission shall take all practical steps to ensure that this Article shall equally apply to persons authorised by the Commission to have access to these matters in accordance with this contract.

7.4 Each of the Contractors shall make available, upon request by persons and legal entities established or incorporated in the Community, appropriate information on the existence of the Foreground Information and Foreground Patents. The Commission may take action to inform such persons and undertakings of the existence of such Information and Patents disclosed in the reports referred to in Article 6.1(e) of this Annex.

7.5 Any communication or publication of the progress or results of the work under this contract, including at seminars or conferences, shall state that it relates to research carried out by the specific Contractor in the framework of the Community Research Programme with a financial contribution by the Commission unless the Commission requests that the said Programme, or the Contractor requests that its name, should not be indicated.

7.6 Subject to Articles 6.6 and 7 of this Annex each of the Contractors shall, during the period of the contract and up to two years after the date of the completion or termination of the contract, give reasonable and appropriate notification and information to standardisation bodies on the results of their work under this contract which may assist or contribute to any European and, if any, international standardisation, such standardisation in progress or envisaged being notified, wherever possible, by the Commission to the Contractors.

## Article 8 - Termination of Contract

8.1 The Contractors may terminate the contract by giving two months notice in writing by recorded delivery or registered post to the Commission where they consider that no further purpose will be served by continuing the

work under the contract for technical reasons or a change in the exploitation potential of the results of the contract. Such termination shall require the agreement of all of the Contractors performing the contract. Having regard to Article 21.4 the allowable costs of the Contractors shall, unless the Commission agrees with the reasons and need for the termination, be limited to costs related to deliverables accepted by the Commission. If the Commission agrees with the reasons and need for the termination, the provisions of the first indent of Article 8.3 shall also apply with regard to allowable costs.

In the event of any such termination any other legal entities selected by the Commission to complete the work shall be deemed to be included within Articles 16.1.1 and 16.2.1 of this Annex and shall be granted licences and user rights on the basis of those Articles for the completion of the work. Exploitation and commercialisation rights shall be granted on terms which are fair and reasonable.

8.2 The Commission may terminate the contract :

- (a) for the same reasons as those in Article 8.1 of this Annex by giving the same notice specified in that Article to the Contractors;
- (b) if the ownership or control of a Contractor or a legal entity directly owning or controlling or under the same ownership or control as a Contractor or directly owned or controlled by a contractor is changed and the said change affects or threatens to affect the conditions under which the contract was concluded. Details of any such changes in ownership or control shall be notified in writing to the Commission within one month of such change;
- (c) if a Contractor becomes bankrupt, or has a winding up order made against it, or except for the purposes of reconstruction, has a resolution for voluntary winding up passed in respect of it, or has a liquidator or receiver appointed over it;
- (d) in the event of non performance by one or more of the Contractors, except for reasonable and justifiable technical or economic reasons, of any of its obligations after giving notice in writing by recorded delivery or registered post to the Contractor requiring performance of the obligations and the Contractor is still in breach of its obligations one month after the receipt thereof;
- (e) if, in order to obtain the financial contribution of the Commission, or any other advantage under the contract, a Contractor has made false or incomplete statements for which it may properly be held responsible;
- (f) if a Contractor fails to start the work on the date specified in the contract, and any proposed revised date is considered unacceptable by the Commission;
- (g) if Force Majeure, as referred to in Article 1.6, lasts for more than four months.

Termination on the grounds of Article 8.2(b), (e), (f) and (g) shall require one month's notice to be given in



writing by recorded delivery or registered post to the Contractors.

- 8.3 Subject to Article 21.4, in the event of any termination under Article 8.2(a) or (b) of this Annex costs for work under the contract

- before the effective date of the termination under the said Article 8.2(a) or (b)
- after the effective date of the termination, under the said Article 8.2(a), in respect of any commitment entered into before such termination, and which cannot reasonably be cancelled or avoided,

may be accepted by the Commission as allowable costs in accordance with the contract to such extent as is fair and reasonable.

- 8.4 Subject to Article 21.4, in the event of termination under Article 8.2 (c), (d), (e) and (f) of this Annex the Commission may require the reimbursement of all or part of its financial contribution and shall have regard, to such extent as may be fair and reasonable, to the nature and results of the work undertaken and its use, within the framework of a Community RTD programme, to the Commission.

Interest may be added from the date on which payments were received by the Contractor at the rate applied by the European Monetary Cooperation Fund for its operations in ECU increased by 2 percentage points, such rate being published in the Official Journal of the European Communities for the first working day of each month.

- 8.5 Where the contract is being performed by more than one Contractor the Commission may determine not to terminate the contract under Article 8.2, but only the participation of the Contractor to which the aforesaid termination provisions apply, upon such terms and conditions for such Contractor as the Commission considers to be reasonable. Unless there are reasonable grounds for not proceeding with the contract, the Commission shall terminate only the participation of such defaulting Contractor.

If for any reason all the other Contractors are agreeable to an individual Contractor terminating its participation in the work under the contract, the Commission shall not unreasonably withhold its consent to such termination provided that it does not affect or threaten to affect the conditions under which the contract was concluded and subject to Article 21.4 applying to the withdrawing Contractor.

In either of these circumstances the contract shall be deemed to continue in force with the remaining Contractors which may agree with the Commission to replace the defaulting or withdrawing Contractor by another legal entity. The defaulting or withdrawing Contractor shall grant licenses and user rights to the replacing Contractor, for the execution and completion of the work under this contract, on the same terms and conditions as to the continuing Contractors, and shall grant exploitation and commercialisation rights on

terms which are fair and reasonable. The continuing Contractors shall have the obligation to grant rights to the defaulting or withdrawing Contractor in accordance with Article 17.2 and 17.5 only in respect of such Foreground Information or Foreground Patents generated prior to the date of the termination or withdrawal.

- 8.6 The following provisions of this contract shall continue to apply notwithstanding any termination under Article 8:

- Articles 6, 7, 9, 10 and 12 of this Annex;
- part B of this Annex;
- parts F and G of this Annex subject to the cost statements covering the period to the effective date of termination.

## Article 9 - Court of Auditors of the European Communities

The Court of Auditors of the European Communities shall be entitled to the same rights as the Commission and under the same terms and conditions as the Commission in respect of access to, and verification of, any document under the contract for the purposes of any audit.

## Article 10 - Liability

- 10.1 Subject to Article 10.2 of this Annex liability amongst and between the contracting parties for any loss, damage or injury of any nature arising from or in connection with the performance of the work under the contract shall be determined in accordance with the national law governing the contract.

- 10.2 The Contractors shall indemnify the Commission against any liability resulting from

- the publication or transmission of any report in accordance with Article 6 of this Annex, or
- the application of the contents of any report by a third party, unless a suitable disclaimer has been included by the Contractor in the report against such liability.

- 10.3 The Commission shall notify the relevant Contractor of any claim made against the Community in respect of any matter for which the said Contractor is or may be liable hereunder. The Commission shall afford to it a reasonable opportunity and assistance to take over and thereafter conduct any defence of, or negotiations for the settlement of, the same. Unless the relevant Contractor refuses the said opportunity and assistance, or fails to respond within a reasonable time, the Commission shall not make any admissions prejudicial to the interests of the said Contractor.

## Article 11 - Language and Signature of the Contract

11.1 The contract shall be signed by the contracting parties in only one of the official languages of the European Communities and this shall be the authentic version of the contract. The Commission shall, upon request, provide each Contractor, for information purposes only, with a version of this Annex in the official language of the European Communities for the Member State in which that Contractor is situated.

11.2 Where the contract is to be performed by more than one Contractor, each of the Contractors shall sign its two copies of the contract in the authentic language version as indicated in Article 11.1. The Commission shall not, without the agreement of all the parties, sign any copies of the contract before it has received from all the Contractors their signed copies of the contract and shall certify to each of the Contractors that all the Contractors have signed an identical contract.

## Article 12 - Competent Court

The Court of Justice of the European Communities shall have sole jurisdiction in respect of any dispute concerning the contract.

## Article 13 - Completion or expiration of the contract

Unless otherwise explicitly provided, the contract shall be deemed to be completed or expire on the date of the approval by the Commission of the last technical report, document or any other deliverable required by the contract, or the submission of the consolidated cost statement or last payment effected by the Commission, whichever shall be the last date.

## Part B - Ownership, exploitation and dissemination of results

### Article 14 - Definitions

For the purposes of part B of this Annex :

- (1) "Contractor" means, except where the context requires otherwise, each party which has concluded the specific contract with the Commission of which this Annex forms a part, and any Affiliated Company of such party provided that the said Affiliated Company undertakes to duly comply with the obligations of this Annex in relation to the granting of any licences or user rights and the observance of any confidentiality obligations imposed upon the Contractor of which it is an Affiliated Company.
- (2) "Affiliated Company" means :
  - (a) any company
    - directly or indirectly owning or controlling any Contractor, or

- under the same direct or indirect ownership or control as any Contractor, or
- directly or indirectly owned or controlled by any Contractor,

for so long as such ownership or control lasts and provided that the said Affiliated Company or the ultimate owning or controlling company is incorporated and resident in, and subject to the law of, a member state of the Community, or a Non Community State.

Ownership or control shall exist through the direct or indirect:

- ownership of more than 50% of the nominal value of the issued equity share capital or of more than 50% of the shares entitling the holders to vote for the election of directors or persons performing similar functions, or
  - right by any other means to elect or appoint directors, or persons performing similar functions, who have a majority vote.
- (b) any other organisation specified for the purposes of this contract in a schedule or annex to this contract as being deemed to be an Affiliated Company,

provided that a company shall not be regarded as an Affiliated Company where there has been a change in the ownership or control of the Contractor unless the Commission has been provided with the details of the change in accordance with Article 8.2(b) of this Annex and has indicated in writing that it does not intend to terminate the contract in accordance with the said Article.

- (3) "Foreground Information" means information, including all kinds of results, generated by any Contractor, or third parties working for any Contractor, in the execution of the specific contract of which this Annex forms a part.
- (4) "Foreground Patents" means patent applications, patents, copyrights, plant variety rights, and other similar statutory rights for inventions or improvements made or conceived by any Contractor or any person employed or engaged by any Contractor in the execution of the specific contract of which this Annex forms a part.
- (5) "Background Information" means information, excluding Foreground Information, owned or controlled by any Contractor in the same or related fields to the research under the specific contract of which this Annex forms a part and generated:
  - outside any Community Research Programme and without a financial contribution from the Commission or
  - under a contract concluded with the Commission within a Community Research Programme, but in respect of which the Contractor is no longer under any obligations by that contract, equivalent to the

obligations referred to in Article 20.1(c), still to grant licences or user rights to third parties.

- (6) "Background Patents" means patent applications, patents, copyrights, plant variety rights and other equivalent statutory rights excluding Foreground Patents, owned or controlled by any Contractor in the same or related fields to the research executed under the specific contract of which this Annex forms a part and originated:
- outside any Community Research Programme and without a financial contribution from the Commission or
  - under a contract concluded with the Commission within a Community Research Programme, but in respect of which the Contractor is no longer under any obligations by that contract, equivalent to the obligations referred to in Article 20.1(c), still to grant licences or user rights to third parties.
- (7) "Proprietary Information" means information not available to the public which contains trade secrets or technical, commercial or financial information, but which is known only to the owner or which has been or will be transmitted by the owner to third parties only under confidentiality obligations by the recipient of such information.
- (8) "Community Undertaking" means any person or legal entity established or incorporated in the Community and carrying out research and technological development in the Community.
- (9) "Non Community State" means the State outside the Community in which the Non Community Undertaking participating in the specific contract of which this Annex forms a part is established or incorporated.
- (10) "Non Community Undertaking" means any person or legal entity established or incorporated outside the Community and carrying out research and technological development in the Non Community State, provided that the Undertaking
- is participating in the Specific Community Research Programme in accordance with the decision of the Council or the Commission relating to that Programme, or in the framework of an agreement for scientific and technical cooperation concluded between the Community and a State which is outside the Community and which is specified in this contract, and
  - in the case of a company, is ultimately owned or controlled, within the meaning specified in the definition of Affiliated Company, by a company incorporated in, and subject to the law of a Member State of the Community, or a Non Community State.
- (11) "Different Community Research Programme" means a specific programme adopted by a decision of the Council or the Commission relating to research and technological development, in related fields or with related objectives to the Specific Community Research Programme provided that the obligations under a specific Article in this part of this Annex in respect of a

Different Community Research Programme shall apply only if the contractor in the Different Community Research Programme is subject to equivalent obligations by a contract concluded, or agreement in writing, with the Community.

- (12) "Specific Community Research Programme" means the specific programme adopted by a decision of the Council or the Commission relating to research and technological development from which this contract emanates.
- (13) "Complementary Contract" means any contract concluded with the Commission where the work covered has technical interdependence with the research work specified in the specific contract of which this Annex forms a part, and is agreed by the Commission and the contractors participating in each contract to be such.
- (14) "Complementary Contractor" means a person or a legal entity which has concluded a Complementary Contract provided that the provisions of this Annex relating to Complementary Contractors shall apply only to those contractors agreed in writing between the Commission and all the contractors participating in each contract.
- (15) In the application of the provisions concerning the granting of licences and user rights for Information and Patents within and between projects and programmes :
- "commercial conditions" means open market payment and other conditions;
  - "favourable conditions" means conditions that have a value lower than commercial conditions,
  - "transfer conditions" means conditions that have a value lower than favourable conditions, normally the cost of making the licences and user rights available;
  - "royalty-free" means at no cost and against no conditions other than those specified in Part B of this Annex.

## Article 15 - Ownership

- 15.1 Foreground Information shall be owned by the Contractor generating such Information.
- 15.2 Foreground Patents shall be owned by the Contractor, making or conceiving, or employing or engaging the person who made or conceived, the invention or improvement which is the subject of the said Foreground Patents. Contractors shall ensure that where such persons employed or engaged by them have statutory rights in respect of the said Foreground Patents in accordance with any national law of a Member State, rights relating to the said Foreground Patents shall be made available to such Contractors so as to enable them to fulfill the obligations imposed on them by this Annex.
- 15.3 Ownership of Background Information and Background Patents shall not be affected by the provisions of this Annex, but the granting of user rights

or licences, against adequate compensation, may be required in certain cases as specified in this Annex.

- 15.4 Where two or more Contractors are involved in the execution of the specific contract of which this Annex forms a part, they shall, subject to Articles 16 and 17 of this Annex, agree between themselves on the arrangements for the ownership of Foreground Information and Foreground Patents.

## Article 16 - User Rights and Licensing for Research and Development

### 16.1 Foreground Information and Patents

16.1.1 Each of the Contractors shall, on a royalty-free basis, make available its Foreground Information and grant non exclusive licences for its Foreground Patents to the other Contractors participating in the same specific contract or Complementary Contractors, where and to the extent that such Information is, or such licences for the Patents are, necessary for the execution of their own research and development work under the said specific contract or the relevant Complementary Contract.

16.1.2 Each of the Contractors shall, on transfer conditions, make available its Foreground Information and grant non exclusive licences for its Foreground Patents to other contractors :

- participating in the Specific Community Research Programme and being Community Undertakings or Non Community Undertakings
- participating in a Different Community Research Programme and being Community Undertakings

to the extent that such Information is, or such licences for the Patents are, necessary for the execution of their own research and development work under their contracts with the European Communities and provided that, in the case of Information, suitable arrangements required by the Contractor are concluded to ensure that the Information will not be used for any other purpose than that for which it was supplied.

16.1.3 Each of the Contractors shall not unreasonably refuse, upon request and on favourable conditions, to make available its Foreground Information and grant non exclusive licences for its Foreground Patents to Community Undertakings provided that

- such information is, or such licences for the patents are, necessary for the execution of their own research and development work in the same or related fields in conformity with the Community interests, and
- no major business interests of the Contractor oppose the disclosure or grant of a licence, and
- in the case of Information, suitable arrangements required by the Contractor are concluded to ensure that the Information will not be used for any other purpose than that for which it was supplied, and

the Contractor may refuse if it, or any of its licensees, has taken or is taking adequate steps to exploit or commercialise the Information or Patents in the Community.

### 16.2 Background Information and Patents

16.2.1 Each of the Contractors shall, upon request and at non discriminatory transfer conditions, make available its Background Information and grant non exclusive licences for its Background Patents to the other Contractors participating in the same specific contract or Complementary Contractors for research and development provided that

- the Contractor concerned is free to disclose or license the use of such Information, or grant licences for such Patents and

- such Information is, or such licences for the Patents are, necessary for the execution of their own research and development work under the said specific contract or the relevant Complementary Contract.

16.2.2 Each of the Contractors shall, upon request and on favourable conditions, make available its Background Information and grant non exclusive licences for its Background Patents, necessary for the use of Foreground Information made available in accordance with Article 16.1.2 hereof, to other Contractors which are Community Undertakings, for the execution of a research and development contract concluded with the Commission within:

(a) the Specific Community Research Programme, provided that

- the Contractor is free to disclose or license the use of such Information, or to grant licences for such Patents, and

- no major business interests of the Contractor oppose the disclosure or grant of a licence, and

- in the case of Information, suitable arrangements required by the Contractor are concluded to ensure that the Information will not be used for any other purpose than that for which it was supplied.

(b) a Different Community Research Programme, subject to the provisos of (a) being correspondingly applicable with the substitution of business interests for major business interests in the second proviso.

16.2.3 Each of the Contractors shall, to such extent as may be agreed by the Contractor, upon request and on favourable conditions, make available Background Information and grant non exclusive licences for its Background Patents, necessary for the use of Foreground Information made available in accordance with Article 16.1.2 hereof, to other contractors which are Non Community Undertakings, for the execution of a research and development contract concluded with the Commission within the Specific Community Research Programme, provided that the Contractor is free to disclose or license the use of such Background

Information, or to grant a licence for such Background Patents. The Contractor shall have regard to the interests of the Community for the implementation of the Specific Community Research Programme, as well as its business interests in reaching a decision whether the disclosure or licence shall be granted or refused.

### 16.3 Proprietary Information

If Proprietary Information is made available, the same shall be transmitted pursuant to an arrangement of confidentiality and the information shall be duly marked so as to notify the recipient to preserve its confidentiality.

## Article 17 - Exploitation and Commercialisation

17.1 Contractors which are the owners of the Foreground Information and Foreground Patents arising from the execution of the specific contract of which this Annex forms a part, shall develop, exploit or commercialise, or have exploited or commercialised, these results in conformity with the interests of the Community within a reasonable period of time to be agreed with the parties to this contract before, or at the time of, the submission of the definitive version of the final report.

### Foreground Information and Patents

17.2 Each Contractor participating in the same specific contract and each Complementary Contractor shall be entitled to exploit or commercialise the results of the said contract or of the Complementary Contract, or to have manufactured by third parties within the Community, or outside the Community in conformity with the interests of the Community, products incorporating the said results for exploitation or commercialisation by it or on its behalf, and for its risk and account, by third parties.

For the purposes of this Article each Contractor or each Complementary Contractor shall be granted non-exclusive licences and user rights, on a royalty-free basis (subject as hereinafter provided), for any Foreground Patents and Foreground Information generated under the said contracts. Any licences and user rights to be granted by this Article shall not, unless the owner of the Foreground Patents or Foreground Information expressly agrees, confer any right to sub-license and may be subject to appropriate undertakings as to confidentiality, but shall otherwise be unrestricted.

If a Contractor is not incorporated or established principally to undertake commercial activities and, due to its size or nature, is itself unable to commercialise the results of such a contract, the aforementioned licences and user rights required to be granted by such a Contractor to the other Contractors and Complementary Contractors may, instead of on a royalty-free basis, be on fair and reasonable financial or royalty conditions, or other conditions of similar effect, agreed between the relevant parties having regard to the contribution of such a Contractor to the contract and the commercialisation potential of the results. The need to agree such terms for

the granting of licences shall in no way delay, hinder or prejudice the commercialisation by any other Contractor, and if necessary, the licences shall be granted against a condition that final agreement on the terms is reached after the commencement of the commercialisation. Where such licences are granted on the aforesaid conditions the relevant Contractor shall not undertake any commercialisation of the results.

17.3 Each of the Contractors shall not unreasonably refuse, upon request and on favourable conditions, to grant user rights and non exclusive licences of its Foreground Information and Foreground Patents to other contractors

- participating in the Specific Community Research Programme and being Community Undertakings or Non Community Undertakings
- participating in a Different Community Research Programme and being Community Undertakings

provided that

- the rights or licences are necessary for the exploitation or commercialisation of the results of their Contracts with the European Communities, and
- no major business interests of the Contractor oppose the grant of the rights or licences, subject to these interests not abusively restricting the exploitation or commercialisation of the results, and
- the Contractor may refuse if the rights or licences relate to products, or the manufacture thereof, which are or are about to become commercially available.

17.4 Each of the Contractors shall not unreasonably refuse, upon request and on commercial conditions, to grant user rights and non exclusive licences of its Foreground Information and Foreground Patents:

- (a) to any Community Undertaking, provided that
  - the rights or licences are necessary for the exploitation or commercialisation of their own research and development work in the same or related fields in conformity with the interests of the Community, and
  - the second and third provisos of Article 17.3 shall correspondingly apply.
- (b) to any legal entity established or incorporated in the Community which has a legitimate interest in the rights or licences for manufacture, exploitation, commercialisation, use and sale, in conformity with the interests of the Community provided that
  - the Contractor, or any of its licensees, has not taken adequate steps to exploit or commercialise, or to secure exploitation or commercialisation, of the Information or Patents within the period of time agreed in accordance with Article 17.1, and

- the second and third provisos of Article 17.3 shall correspondingly apply, and
- technical information shall, where required and against additional financial compensation, be supplied if the Contractor concerned is free to disclose it.

#### Background Information and Patents

17.5 Each of the Contractors shall, on favourable conditions, grant user rights and non exclusive licences for its Background Information and Background Patents to the other Contractors participating in the same specific contract, or Complementary Contractors, provided that

- the rights or licences are necessary for the exploitation or commercialisation of Foreground Information or Foreground Patents generated under the relevant contracts, and
- the Contractor concerned is free to disclose and grant the rights or licences, and
- the second and third provisos of Article 17.3 shall correspondingly apply.

#### Verification of exploitation or commercialisation

17.6 Contractors shall keep at the disposal of, and if required make available to, the Commission and persons authorised by the Commission, information and documents permitting the latter to verify if the obligations to exploit or commercialise, or have exploited or commercialised, the Foreground Information and Foreground Patents have been complied with. A Contractor may withhold its agreement for authorised persons only on reasonable grounds, having due regard to the general interests of the Community and to reasonable and appropriate industrial interests of the Contractor.

### Article 18 - Notification of Limitations, Restrictions and Obligations

- 18.1 Each Contractor shall use reasonable care and diligence in determining whether information or patents are, or may become, subject to the limitations, obligations or restrictions of this Article.
- 18.2 Each Contractor shall notify the other Contractors, Complementary Contractors, and the Commission prior to the signature of, and promptly during the period of, this contract and of the Complementary Contract of:

- (a) any contractual limitation that may apply:
- to the disclosing or granting of licences or user rights of any of its own Background Information or its own Background Patents, or
  - the disclosure or licensing of information or patents of any third party specifically granted to it

that may be necessary for the execution of this contract or a Complementary Contract, or the

exploitation or commercialisation of the results thereof.

- (b) any obligation that may bind the Contractor to disclose or grant licences or user rights for any Foreground Information to any third party, neither being an Affiliated Company nor eligible to benefit under this Annex, where such licences or rights concern a substantial part of this contract or a Complementary Contract, or affect the exploitation or commercialisation of the results thereof;
- (c) any restriction arising from governmental or similar regulations that may limit
- the availability of any information or patents used or intended to be used by the Contractor in this contract or a Complementary Contract, or
  - rights or licences in respect thereof,

which would materially and adversely affect the execution of this contract or a Complementary Contract, or the exploitation or commercialisation of the results thereof.

18.3 Any obligation to notify as set out in this Article shall not apply to any general restrictions imposed by Member States of the Community or the European Communities limiting the availability of information or patents for legal entities situated in States outside the Community.

18.4 Following such notification under this Article, the other Contractors shall transmit to the Commission their observations on the impact of such limitations, obligations or restrictions within one month of receipt of such notification. If within a further month the Commission transmits no observations to the notifying Contractor, the conditions arising out of the notification shall be deemed to be accepted by the Commission.

The contract may be terminated in accordance with Article 8 of this Annex if it appears that:

- such conditions may materially and adversely affect the execution of the work or may lead to a material change in the exploitation potential of the results of the contract of which this Annex forms a part, and
- no agreement can be reached amongst the contracting parties to modify the contract in a suitable form.

### Article 19 - Patents and Licensing for the Community

19.1 The Community shall, if it so requests, be granted, for the needs of its Joint Research Centre and Joint Undertakings established under the Treaty establishing the European Atomic Energy Community, a non exclusive, royalty-free, irrevocable licence to use the Foreground Information or Foreground Patents for research purposes only, but shall keep this confidential and shall not have the right to grant sublicences.

19.2 If a Contractor is unable or does not wish to apply for a Foreground Patent in a country specified by the Commission, the Commission may, where such protection is desirable having regard to the interests of the Community and the Contractor, apply for such protection at the request of, or with the agreement of, the Contractor. No disclosure shall be made by the Contractor which might prejudice any application by the Commission for protection under this Article. The Contractor shall provide the Commission with such reasonable assistance as is necessary to enable it to comply with the official formalities laid down for filing a valid patent application. The Commission shall grant to the Contractor at its request a non exclusive licence in respect of such a patent against reasonable conditions to be determined by the Commission.

19.3 Any Contractor which has applied for and obtained a patent protecting a Foreground Patent may assign it to a third party if the assignee is situated in the Community and agrees to discharge the obligations of the assignor arising from Part B of this Annex. The Commission may not oppose any other assignment or abandonment in other circumstances unless it is willing to accept the assignment of the patent in its name, and a formal response shall be given by the Commission to any written request submitted to it within two months of its receipt, failing which it shall be deemed to have approved the request. If a patent is assigned to the Commission in accordance with this Article, the Commission shall grant to the relevant Contractor at its request a non exclusive royalty-free licence in respect of such a patent.

The Contractor shall not oppose the assignment or abandonment of any patent obtained by the Commission in pursuance of Article 19.2 unless it is willing to accept the assignment of the patent in its name, and a formal response shall be given by the Contractor to any written request submitted to it within two months of its receipt failing which, it shall be deemed to have approved the request.

19.4 Subject to Articles 19.2 and 19.3, the Commission shall, in respect of any patent held in its name by virtue of the aforesaid provisions of this Article, comply with Articles 16 and 17 of this Annex relating to the granting of licenses in respect thereof to the Contractors and other third parties as if it were a Contractor

## Article 20 - Duration and implementation of Part B

20.1 The rights and obligations of the contracting parties resulting from this part of this Annex, shall apply

- (a) for the duration of the Foreground Patent, in respect of Patents in Article 19.1, and for the period specified in (b) hereof in respect of Information in Article 19.1;
- (b) for a period of 10 years, after the expiration, or termination in accordance with Article 8 of this Annex, of the contract of which this Annex forms a part, in respect of Articles 16.1.3, 17.1, 17.4, 17.6, 19.2, and 19.3;

- (c) for a period of 5 years after the expiration, or termination in accordance with Article 8 of this Annex, of the specific contract of which this Annex forms a part, in respect of the remaining Articles.

The cessation of the rights and obligations under this Article shall not affect

- the continuance of any licences or user rights in respect of Foreground or Background Information or Patents granted in accordance with this Annex to any other Contractor, the Community or third party nor
- the rights of such Contractors, the Community, or third parties to such licences or user rights where they were duly requested prior to such cessation.

For the purposes of this Article this contract shall be deemed to expire on the date of the approval by the Commission of the last technical report, document or any other deliverable required by the contract.

20.2 The Commission undertakes to use all reasonable endeavours to ensure that contractors participating in the Specific or a Different Community Research Programme, as defined in Article 14(11) and (12) of this Annex, duly comply with their obligations relating to the granting of any licences or user rights properly requested by a Contractor.

20.3 Each Contractor recognises that any beneficiary under Part B of this Annex has a right to commence legal proceedings, if necessary, through the Commission, to obtain observance and performance of the obligations imposed on a Contractor towards the beneficiary by the said Part B.

## Part C - Payments

### Article 21 - Payments of Commission Contribution

21.1 Expenditure of Contractors in cost statements shall be expressed in their national currencies unless otherwise specified in the contract. All payments by the Commission shall be made in ECU (European Currency Units). The rate for converting these currency costs to ECU by the Commission shall be the rate published in the Official Journal of the European Communities valid for the first working day of the month in which the payment request is initiated in the Commission. No account shall be taken of exchange gains or losses during the time between the issue of the payment request and the receipt by Contractors of any financial contribution.

21.2 The financial contribution of the Commission shall be paid in instalments as follows unless otherwise specified in the contract:

- (a) a single sum specified in Article 4 of the contract shall be paid by the Commission as an advance

payment within two months following the signature by all parties of the contract, but shall not be made earlier than two months before the Operative Commencement Date of the contract. This advance shall be used for the purpose of this contract.

If the Commission considers that the work has not effectively been commenced within three months of the payment of the advance, the Commission may

- determine to add interest on the advance until the effective commencement date at the monthly rate applied by the European Monetary Cooperation Fund for its operations in ECU published in the Official Journal of the European Communities for the first working day of each month, or
- without necessarily terminating the contract, require the reimbursement of the advance together with such interest.

The Commission may adjust the amount of the advance if the actual level of costs is considerably less than foreseen.

- (b) periodic payments within two months following the approval by the Commission of the progress reports required by the contract and of the associated cost statements in accordance with Article 36 of this Annex.
  - (c) the total of the advance and periodic payments shall not exceed the total financial contribution of the Commission less an amount deducted by way of a retention. The retention shall be a maximum of 10% of the total financial contribution, or 500,000 ECU, whichever is the lower. The retention and any other balance due shall be paid within two months of the date of the approval by the Commission of the consolidated cost statement and the last technical report, document and any other deliverable required by the contract.
- 21.3 If on completion or cessation of the work under the contract the total financial contribution of the Commission calculated to be paid in accordance with this Annex is less than the payments already made by the Commission, the Contractors shall immediately reimburse, in ECU, the difference to the Commission.
- 21.4 Subject to Article 39 of this Annex, periodic payments made against cost statements shall be considered as advances until acceptance, in accordance with the procedure specified in Annex I, of the appropriate deliverable specified in Annex I, or, if no deliverables are specified, until acceptance of the final report.

## Part D - Allowable Costs

### Article 22 - Estimated Costs and Transfer of Costs

- 22.1 Any categories of estimated costs given by each of the Contractors for the work under the contract shall be

indicative only and the Contractors may transfer expenditure between categories provided that it does not fundamentally affect the scope or content of the work to be carried out.

- 22.2 Each of the Contractors shall ensure that no unnecessary cost or unnecessarily high cost is charged to the contract and shall not make any profit or other surplus on account of the financial contribution of the Commission.

### Article 23 - Allowable Costs

Without prejudice to Article 27, allowable costs shall include only actual costs borne by each of the Contractors after the Operative Commencement Date of the contract and which are expressly necessary for the performance of the work under the contract. Allowable costs may include all or any of the following categories of costs:

- labour
- overheads
- travel and subsistence
- durable equipment
- consumables
- computing
- external assistance
- other costs in accordance with Article 31 of this Annex.
- taxation and customs duties in accordance with Article 32 of this Annex

### Article 24 - Labour

- 24.1 Labour costs shall be charged in respect of the actual time undertaken by direct labour on the work under the contract and shall be calculated by reference to:

- the actual gross salary, wages, or any other labour costs directly relating to the employment of personnel such as social charges and pension contributions, but excluding any participation in profits, or
- average salaries or wages and such other labour costs specified above, in accordance with the usual policies or practices of the relevant Contractor, where such averages do not deviate significantly from the actual salary or wages and such other labour costs specified above.

- 24.2 Records of time devoted to the work under the contract must be maintained by staff throughout the contract and must be certified at least monthly by the project manager as designated by Article 1.5 of this Annex or another appropriate senior employee of the Contractors.

- 24.3 Direct labour costs shall normally include only scientific, technical support or specialised staff and shall not include general administrative, clerical, secretarial or other similar costs.



## Article 25 - Overheads

- 25.1 Overheads may include indirect general costs calculated in accordance with the normal accounting conventions, policies and principles of the relevant Contractor in respect of items such as administration, management, depreciation of buildings and general equipment, accommodation, maintenance, telephones, heating, lighting, electricity, postal services, stationery, staff training, insurance.
- 25.2 Overheads may be charged only in accordance with such conventions, policies and principles accepted by the Commission, and only if:
- they are capable of verification and, for each financial year of the relevant Contractor, do not exceed the actual costs; and
  - no items are included which are specifically charged to the contract under any other head of costs or which are specifically charged to any other person or project by the relevant Contractor.
- 25.3 Overheads may be expressed as a recovery on labour or other costs, and resulting recovery rates not exceeding those used by the relevant Contractor for national governments or other public organisations for similar research may be charged provided that the Commission considers that the principles for calculating them do not significantly conflict with the provisions of this Annex and is supplied with the necessary documentation to justify and support the rates.

## Article 26 - Travel and Subsistence

Travel and subsistence shall be charged in accordance with the internal rules of the relevant Contractor, but prior approval of the Commission is required for travel outside Western Europe.

## Article 27 - Durable Equipment

- 27.1 Expenditure on equipment which is purchased or fabricated after the Operative Commencement Date of the contract or within the preceding six months and which:
- has a life expectancy not less than the duration of the work under the contract, or
  - is placed upon the inventory of durable equipment of the relevant Contractor, or
  - is treated as capital expenditure in accordance with the accounting conventions and policies of the relevant Contractor,
- shall be allowable costs, reimbursed in a single amount, provided that such costs are not included whether by depreciation or otherwise within any overhead costs.
- 27.2 For the purpose of calculating such allowable costs, durable equipment shall be deemed to have a life expectancy of three years in the case of computing equipment the purchase price of which is not greater than 10,000 ECU in value, and five years for other

equipment. The allowable costs shall be the proportion of the expenditure related to its use on the project that the period of the contract after its delivery bears to such life expectancy.

## Article 28 - Consumables

- 28.1 Expenditure on consumables shall relate to the purchase, fabrication, repair or use of any materials, goods or equipment which:
- do not have a life expectancy greater than the duration of the work under the contract, and
  - are not placed upon the inventory of durable equipment of the relevant Contractor, and
  - are not treated as capital expenditure in accordance with the accounting conventions and policies of the relevant Contractor.
- 28.2 No direct charge shall be made for such costs where it is the usual practice of the relevant Contractor to include the costs, whether by depreciation or otherwise, in any overheads.

## Article 29 - External Assistance

Subject to Article 3 of this Annex costs of associated contracts, subcontracts, and services shall be allowable costs as external assistance.

## Article 30 - Computing

Internal computer costs may include all related costs for staff, connect time, central processor unit time, lines printed, disc storage, material, equipment and charges of outside agencies and may be charged in accordance with the normal rules of the relevant Contractor on the basis of the computer time actually devoted to the work under the contract.

## Article 31 - Other Costs

Any other additional or unforeseen cost not falling within any of the aforesaid categories may be charged with the agreement of the Commission provided that it is necessary for carrying out the work under the contract and does not fundamentally affect the scope or the content of the work.

## Article 32 - Taxation and Customs Duties

### 32.1 General provisions

- The Contractor shall carry out the formalities specified hereinafter in this Article to enable the Community to benefit under Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Communities which, as regards its financial contribution to the Research, provides that the Governments of the Member States of the Community shall, wherever possible, take the appropriate measures to remit or refund the amount of indirect taxes or sales taxes in the price of movable or immovable property for the official use of the Community and that the Community is

exempt from all customs duties, prohibitions and restrictions on imports and exports in respect of articles intended for its official use.

- b) The Contractor shall, prior to any importation from a country not belonging to the Community, contact the relevant Commission departments, which will provide it with all relevant information.
- c) Except with the approval of the Commission, goods purchased or imported under the provisions of the aforesaid Protocol may not be disposed of, assigned or used for purposes other than those laid down in the Contract. To enable the necessary taxation and customs formalities to be carried out, the relevant Commission departments shall be informed of any such disposal, assignment or other use.

## 32.2 Special provisions

### 32.2.1 In Belgium

- a) Where the Contractor is liable to pay Value Added Tax, invoices relating to exempted transactions shall be marked "Exonération de la TVA - Article 42 paragraphe 3.3 du Code Circulaire No. 2/1978".
- b) Where the Contractor is not liable to pay Value Added Tax, he shall contact the "Administration Centrale de la TVA, de l'Enregistrement et des Domaines", to secure exemption from VAT in respect of the provisions of goods and services necessary for performance of the Contract.

### 32.2.2 In France

By order of the Minister of Economy and Finance of 29 July 1980 (Bull. Off. note number 201 of 18 November 1980), the provision of services subject to Article 259B of the Code Général des Impôts for a Community Institution outside France, are exempt from Value Added Tax.

### 32.2.3 In Italy

Goods and services supplied in Italy for official use by the Community are directly exempt from taxation by virtue of Article 72 of Presidential Decree No. 633 of 26 October 1972, as modified by Presidential Decrees No. 687 of 23 December 1974 (Italian Official Gazette No. 338 of 28 December 1974) and No. 288 of 2 July 1975 (Italian Official Gazette No. 183 of 11 July 1975).

### 32.2.4 In the Grand Duchy of Luxembourg

Goods and services supplied within the country for official use by the Community are exempt from Value Added Tax by virtue of Articles 8 and 9 of the Règlement Grand ducal of 19 December 1969 published in the Journal Officiel du Grand Duché de Luxembourg - Recueil de Législation A - No.66 of 24 December 1969.

## 32.3 Non recoverable VAT

32.3.1 If a Contractor or an associated contractor has not been, and will not be, able by any means to recover the VAT

paid for the purpose of this contract, the VAT amount shall be considered as an allowable cost provided that the said Contractor has:

- taken all action with respect to VAT recovery specified by this contract;
- sought a prior direct exemption from the relevant national VAT administration;

32.3.2 Where the amount of the VAT for an invoice exceeds a threshold specified by the Commission, the Contractor shall comply with the following conditions to enable the Commission to recover the VAT from the government of the relevant Member State of the Community:

- the cost statement shall specify the total amount of VAT chargeable to the Commission
- the VAT form specified in part H of this Annex shall be submitted with the corresponding cost statement.
- three clear and legible copies of the relevant invoices of the supplier showing the supplier's name, the date of the invoice, the VAT amount, the total amount to be paid and the type of service or goods provided shall be attached to the cost statement with the said VAT form;
- any other document required by the Commission to enable it to recover the VAT shall be provided on request.

32.3.3 VAT reimbursed in accordance with Article 32.3.2 shall be in addition to the contribution of the Commission specified in the contract

## Article 33 - Items not Allowable

Allowable costs, whether charged directly or indirectly, shall, inter alia, exclude :

- any profit,
- unnecessary, extravagant or wasteful outlays,
- distribution expenses, and marketing and advertising expenses to promote products and commercial activities,
- any provisions for possible future losses or liabilities,
- any interest, or return on capital employed,
- bad debts,
- entertainment expenses, except such reasonable expenses accepted as being wholly and exclusively necessary for carrying out the work under the contract,
- any costs relating to other projects financed by third parties,

any costs relating to the protection of results of the work under the contract.

## Part E - Specific Financial Provisions for organisations charging additional costs

### Article 34 - Application of additional costs

- 34.1 This part of the Annex shall apply only to those Contractors whose actual allowable costs are to be the actual additional costs of carrying out the work under this contract.
- 34.2 For the purposes of this contract additional costs means costs specified in Articles 22 to 33 of Annex II as modified hereafter, of carrying out the work under the contract which are additional to the normal recurrent costs of the Contractor without the execution of the work under the contract and are not reimbursed by any third party by way of grant, subsidy, or otherwise.

### Article 35 - Modifications to Part D of Annex II

#### Labour

- 35.1 There shall be added to Article 24 of Annex II the following:
- "24.3A Notwithstanding Articles 24.1 and 24.3 of Annex II labour costs shall relate only to staff
- (a) who are employed as research staff or assistants with a view to carrying out research, and
  - (b) who are employed under temporary contracts of employment normally commencing after the date of the commencement of the work under the contract for periods not normally exceeding the duration of this contract, or who are permanently employed support staff whose salaries are not financed by normal recurrent or other support from government departments of the Member States of the Community or other persons or bodies, and who are wholly and exclusively or principally assigned to the work under the contract, and
  - (c) who are not employed specifically for the purpose of fulfilling any teaching duties.
- 24.3B Labour costs shall be calculated only by reference to the actual salary in accordance with the first indent of Article 24.1 of Annex II, and such costs may also include full-time registration or tuition fees payable by Contractors for research staff."

#### Overheads

- 35.2 No overheads shall be calculated as an allowable cost and Article 25 of Annex II shall be substituted by the following:

"25.AA fixed contribution may be charged in respect of indirect general costs such as administration, management, depreciation of buildings and general equipment, accommodation, maintenance, telephones, heating, lighting, electricity, postal services, stationery, staff training and insurance.

The contribution shall be fixed at 20% (or any lower amount requested by the Contractor in accordance with its normal accounting conventions, policies and principles) of total allowable costs, excluding Associated Contracts and VAT".

#### Computing

- 35.3 Article 30 of Annex II shall be modified to the extent that the costs for routine and minor usage of computer facilities shall not be an allowable cost under the said Article but shall be deemed to be included in the fixed contribution specified in Article 35.2.

## Part F - Justification of Costs

### Article 36 - Cost Statements

- 36.1 Periodic cost statements shall be submitted to the Commission for the periods specified in the contract and shall unless otherwise specified in the contract cover the same period as each periodic progress report specified in the contract. They shall be appended to the corresponding periodic progress report.
- 36.2 If a cost statement for any Contractor is not submitted at the appropriate time, the Commission may determine to withhold the payment to that Contractor, or for essential reasons to all the Contractors in the contract, until the next financial reporting period.
- 36.3 Cost statements shall accord with the model format, and incorporate the details, specified in part H of this Annex.
- 36.4 Each of the Contractors shall provide any details reasonably required by the Commission for its management of the contract.

### Article 37 - Consolidated Cost Statement

- 37.1 Each of the Contractors shall, within three months after the expiration of the period laid down in the contract for carrying out the work under the contract, submit to the Commission a consolidated cost statement in accordance with the form specified in part H of this Annex.
- 37.2 Where the relevant consolidated cost statement has not been submitted and appropriate notice of its non-receipt has been given in writing by the Commission by recorded delivery or registered post, the Commission may, after the expiration of a further period of one month from the date of such notice and without any necessity to give any further notice determine to make no further reimbursement.

## **Article 38 - Justification of Costs**

Each of the Contractors shall maintain in accordance with the normal accounting conventions imposed by law or otherwise on them and on a regular basis proper books of account, and appropriate supporting documentation, such as invoices, time sheets, details of overhead apportionment, to support the costs reported.

## **Part G - Auditing**

### **Article 39 - Auditing**

Cost statements may be subject to verification even after the Commission has reimbursed costs. The

Commission, or persons authorized by it, unless the relevant Contractor raises an objection to such persons for appropriate industrial and commercial reasons accepted by the Commission, shall be entitled, for the purposes of carrying out audits, to have access at all reasonable times to all books, documents, papers and records kept by the Contractors relating to costs incurred in performing the contract, or, when necessary, to require the submission of such documentary evidence to it. This entitlement shall exist during the period of the contract and up to two years after the date of the termination or completion of the contract. The Court of Auditors of the European Communities shall be entitled to the same rights as the Commission.

# PART H

## Cost Statement

for the period from \_\_\_\_\_ to \_\_\_\_\_  
 Project Title :  
 Contract No. :  
 Name of Contractor/ :  
 Associated Contractor <sup>(1)</sup> : to <sup>(2)</sup>  
 Currency :

Categories of Cost <sup>(3)</sup>	Amount for the period
<u>Direct Costs</u>	
1. Labour <sup>(3)</sup>	
2. Travel and subsistence <sup>(4)</sup>	
- within Western Europe	
- outside Western Europe	
3. Durable equipment	
4. Consumables <sup>(5)</sup>	
5. External assistance	
- Associated Contracts	(6)
- subcontracts/services	
6. Computing	
7. Other items <sup>(5)</sup>	
<u>Indirect Costs</u>	
8. Overheads recovered on labour	
9. Overheads recovered on other direct costs <sup>(7)</sup>	
10. Fixed contribution at 20 % <sup>(8)</sup>	
<u>Taxation and Customs Duties</u>	
11. VAT <sup>(9)</sup>	
<u>Adjustments</u>	
12. Adjustments to costs previously reported <sup>(10)</sup>	
Total:	
....% contribution of Commission:	

Contractor's Certificate <sup>(11)</sup>

We certify that the above costs are derived from the resources employed which were necessary for the work under the contract, that such costs have been incurred and fall within the definition of allowable costs specified in the contract, and that any necessary permissions of the Commission have been obtained.

We certify that any necessary adjustments, for any reason, to costs reported in previous cost statements have been incorporated in the above statement <sup>(10)</sup>

Date:

Date:

Name of Project Manager <sup>(12)</sup>

Name of Financial Officer:

Signature of Project Manager:

Signature of Financial Officer:

(1) Delete as necessary - for Associated Contractor see Art. 3 of Annex II.

(2) The Associated Contractor must specify the name of the Contractor to which it is associated.

(3) Separate details are required for each category in accordance with the annexes which follow.

(4) See Art. 26 of Annex II.

(5) Separate details are only required with the final cost statement. For consumables, generic descriptions are required only for categories over 10.000 ECU.

(6) Each Associated Contractor must submit a separate cost statement for its costs, through the Contractor to which it is associated.

(7) The categories of costs on which such overheads are charged should be identified. If the specification of the amount of the overheads is not practicable, a note to this effect should be included in the cost statement.

(8) For Contractors/Associated Contractors charging additional costs. The calculation must exclude a contribution on VAT and on any costs of Associated Contracts of the Contractor. See Part E

(9) See Article 32 of Annex II - only the amount recoverable by the Commission in accordance with Article 32.3.2 to be shown separately. The VAT form must also be completed.

(10) Not applicable for the first cost statement. Any necessary adjustments, for example to reflect actual rates instead of budgeted rates, must be made in subsequent statements. Details and reasons for any adjustments must be provided.

(11) The Project Manager and the Financial Officer must sign the certificate.

(12) The person designated to be in direct charge of the performance of the work - see Article 1.5 of Annex II.

For the period from \_\_\_\_\_ to \_\_\_\_\_

Contract No. :  
 Name of Contractor/ :  
 Associated Contractor :  
 Currency :

### COST CATEGORY : LABOUR AND OVERHEADS

(A) Category <sup>(1)</sup>	(B) No. of Man Hours/ Months <sup>(2)</sup>	(C) Labour Rate <sup>(3)</sup>	(D) Overheads added to the Labour Rate <sup>(4)</sup>	(E) Loaded Labour Rate Col. (C) + (D)	(F) Labour Cost Amount Col. (B) • (E)	(G) Overheads Amount Col. (B) • (D)
Sub-Totals						
Total (labour+overheads)						

- (1) Labour should normally be specified by category, (e.g. engineer, technician, cost department, etc.), clearly identifiable to contractors' labour rates or charging bands. Individuals should be identified by name where they are specified in the contract as key personnel, or when required for the project under Article 36.4.
- (2) Delete as appropriate in accordance with any specifications of the Commission - normally man hours should be used and, where hourly rates for cost reporting purposes have been agreed with the Commission, man hours must be used.
- (3) The labour rate comprises the elements specified in Article 24.1 of Annex II.
- (4) Overheads principles are specified in Article 25 of Annex II. If a percentage addition is added for overheads, the percentage should be specified. If overheads are added to any element other than labour costs, the amount should be shown separately in the cost statement.

For the period from \_\_\_\_\_ to \_\_\_\_\_

Contract No. :  
 Name of Contractor/ :  
 Associated Contractor :  
 Currency :

**COST CATEGORY : DURABLE EQUIPMENT**

Description	Date of Purchase	Cost	% Allocation to Project <sup>(1)</sup>	Amount <sup>(2)</sup>
Total <sup>(3)</sup>				

**COST CATEGORY : EXTERNAL ASSISTANCE<sup>(4)</sup>**

Supplier <sup>(5)</sup>	Amount
Total <sup>(3)</sup>	

**COST CATEGORY : COMPUTER COST**

Description	Amount
Total <sup>(3)</sup>	

- (1) Based on use of item of equipment for the contract.
- (2) Commission contribution to be reimbursed in a single amount for the contract period. Amount to report is :  
 Actual cost x depreciations rate (33 1/3% per year for minor computing equipment; 20% per year for other equipment) x % allocation to project x contract duration from date of purchase - see Article 27 of Annex II.
- (3) If the amount charged includes any addition for overheads or a handling charge, the addition should be specified separately.
- (4) Includes subcontract work but excludes work of Associated Contractors.
- (5) Any relationship of ownership or control between the supplier and the Contractor must be declared.

FORM TO BE SUBMITTED IN TRIPLICATE WITH THE COST STATEMENT CALLED FOR IN ARTICLE 5 OF THE CONTRACT TOGETHER WITH SUPPORTING DOCUMENTATION.<sup>(1)</sup>

Contract No :  
Name of Contractor/  
Associated Contractor:

Currency :

VAT statement for the period from            to

Name of supplier	Invoice No <sup>(1)</sup>	Amount of invoice		Amount charged in accordance with the contract <sup>(2)</sup>	
		Net amount	VAT	Net amount	VAT
Total VAT <sup>(3)</sup> :					

I certify that the above expenditure has been incurred and falls within the definition of allowable costs specified in the Contract. I certify that the amount of V.A.T. has not been directly or indirectly recovered and is not directly or indirectly recoverable and that all actions with respect to V.A.T. recovery specified by the Contract have been taken.

Date :

Name of Financial Officer:

Signature :

(1) See Article 32.3.2 of Annex II

(2) To take account of e.g. the depreciation or the percentage charged to the Contract

(3) To be reported on the summary page of the cost statement, item "VAT"



## SPECIAL CONDITIONS FOR EFTA PARTICIPANTS

## Part A - Application of the Annex

## Article 1 - Application of this Annex

1.1 This Annex shall apply, to the extent specified hereinafter, to the contract, or to any Contractor established or incorporated in any of the following States and participating in the specific contract (hereinafter referred to as "an EFTA Contractor"), of which this Annex forms a part :

- Austria
- Finland
- Iceland
- Norway
- Sweden
- Switzerland

1.2 Part B of this Annex shall apply to any EFTA Contractor established or incorporated in any of the States listed in Article 1.1 which are not associated, in accordance with Article 1.3, with the Specific Community Research Programme or a subprogramme thereof from which this contract emanates.

The costs of the EFTA Contractor to which Part B applies shall not in any way be allowable costs of the Project and no financial contribution shall be made by the Commission in respect of such costs or any reimbursement made to such costs from the financial contribution of the Commission.

For actual cost contracts of which this Annex forms a part, any such EFTA Contractor shall not be required to submit cost statements, but shall submit statements of effort and resources devoted to the work under the contract.

Each such Contractor established or incorporated outside the Community, other than universities or organisations of a similar nature, shall contribute 5.000 ECU to the management costs of the Specific Community Research Programme. This amount shall be payable to the Coordinator of the specific contract of which this Annex forms a part in a single instalment on the signature of the contract by the said Contractor.

1.3 Part C of this Annex shall apply to the contract with respect to any State listed in Article 1.1 :

- fully associated with the Specific Community Research Programme, or
- partially associated with a subprogramme of the Specific Community Research Programme provided that it shall apply only to the subprogramme of the Specific Community Research Programme in such a case.

1.4 If some or all of the States listed in Article 1.1 are fully associated with the Specific Community Research Programme or partially associated only with a subprogramme of the Specific Community Research Programme, the contract shall specify the names of the States and the nature of the association.

1.5 The Articles of the contract and its Annexes shall be modified in accordance with the Articles hereafter in respect of their application as specified in the preceding Articles.

#### Part B - Modifications for Non-Community Contractors in Non-Associated States

##### Article 2 - Application of Part B

2.1 Articles 2.3 to 2.7 shall apply to actual cost contracts, and Article 2.8 to fixed contribution contracts, of which this Annex forms a part.

2.2 Articles 3 to 6 shall apply to actual cost and fixed contribution contracts of which this Annex forms a part.

##### Actual Cost Contracts : Statements of Efforts

2.3 Cost statements shall not be required to be submitted to the Commission by an EFTA Contractor, but shall be replaced by statements of efforts and resources devoted to the execution of the specific contract of which this Annex forms a part. Such efforts and resources shall be any significant input to the contract considered necessary for the participation by the EFTA Contractor in the contract in accordance with Annex I.

2.4 All references to "cost statements", "financial information" and "financial documents" wherever they occur throughout the contract and its Annexes shall be substituted by references to "statements of efforts and resources".

2.5 All references to "costs" wherever they occur throughout the contract and its Annexes shall be substituted by the references to "efforts and resources".

Actual Cost Contracts : Technical Verification and Audits

2.6 Article 8.2 of the contract shall be substituted by the following :

"The Commission may verify the efforts and resources devoted to the Project during the period specified in Article 39 of Annex II".

2.7 All references to "audit" wherever they occur throughout the contract and its Annexes shall be construed as references to the "verification" specified in Article 4.1 hereof.

Fixed Contribution Contracts : Technical Verification

2.8 Article 8.2 of the contract shall be substituted by the following :

"The Commission may verify the efforts and resources devoted to the Project during the period of the contract and up to two years after the date of the completion or expiration of the contract in accordance with Article 13 of Annex II".

**Article 3 – Financial Contribution by the Commission**

All references wherever they occur throughout the contract and its Annexes implying a financial contribution, payment, or reimbursement by the Commission or any financial reimbursement to the Commission shall be deleted and the Articles shall be construed without such references.

**Article 4 – Participation of Third Parties and Non applicable Articles**

4.1 The first and second indents of paragraph 3 and Article 3.2(a) (participation of third parties) of Annex II to this contract shall not apply to an EFTA Contractor.

4.2 In the application of Articles 3.4 and 3.5 of Annex II written agreement shall not be required, subject to the other provisions of Article 3 of Annex II, for subcontracts of associated contracts with third parties situated in the Non Community State within the meaning of Article 14(9) of Annex II.

**Article 5 – Exploitation and Commercialisation of Results**

5.1 There shall be added after the words "in conformity with the interests of the Community" in Article 17.1 of Annex II the words ", or in conformity with the interests of the State in which it is established or incorporated, subject to these not prejudicing the interests of the Community,".

5.2 There shall be added after the words "within the Community" in the first paragraph of Article 17.2 ", or within the State in which it is established or incorporated".

**Part C – Modifications for Associated States**

**Article 6 – Participation of Third Parties**

In the application of Articles 3.4 and 3.5 of Annex II written agreement shall not be required, subject to the other provisions of Article 3 of Annex II, for subcontracts or associated contracts with third parties situated in the Non Community State within the meaning of Article 14(9) of Annex II.

**Article 7 – User Rights and Licensing for Research and Development**

Article 16.2.3 of Annex II shall be substituted by the following :

Each of the Contractors shall, upon request and on favourable conditions, make available its Background information and grant non exclusive licences for its Background Patents, necessary for the use of Foreground information made available in accordance with Article 16.1.2 hereof, to other contractors which are Non Community Undertakings, for the execution of a research and development contract concluded with the Commission within the Specific Community Research

provisos of Article 16.2.2(a) shall correspondingly apply.

**Article 8 – Exploitation and Commercialisation of Results**

8.1 There shall be added after the words "in conformity with the interests of the Community" in Article 17.1 of Annex II the words ", or in conformity with the interests of the State in which it is established or incorporated, subject to these not prejudicing the interests of the Community,".

8.2 There shall be added after the words "within the Community" in the first paragraph of Article 17.2 ", or within the State in which it is established or incorporated,".

shall be added :

- in paragraph (a) the words "or Non Community Undertaking" after "Community Undertaking",

- in paragraph (b) the words "or the Non Community State" after "the Community",

- in paragraph (b) the words ", or in conformity with the interests of the Non Community State in which it is established or incorporated, subject to these not prejudicing the interests of the Community,".

**ENCLOSURE 19**

Instruction to start the scientific work,  
accompanied by the work schedule  
revised 3 May 1991





project documentation and distributed standards also to the shadow partners that contribute. There is also a possibility that one or two new shadow partners will join the project.

If no other comments or requests are received, NILU is looking forward to receiving the contributions of phase PREP.I in week 23 of 1991 (also refer to the comments in telefax of 21 February 1991).

Best regards

A handwritten signature in cursive script that reads "Terje Krognnes".

Terje Krognnes  
Scientist

#### 4.3 WORK SCHEDULE:

CALENDAR WEEK	PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY (ALL WEEKS MENTIONED ARE <u>PROJECT</u> WEEKS)
19/91-22/91	1-4	PREP.I	Participants consolidate existing "local" methods and report them to the co-ordinator. Publication reprints and detailed description of methods and difficulties forwarded to NILU by express mail before end of week 4.
24/91	6	"	NILU compiles internal report.
32/91-35/91	14-17	PREP.II	NILU prepares standards and methods for trial distribution.
23/91-35/91	5-17	"	Participants prepare additional methods to be used for intercomparisons. Participants report results and bring reports to NILU in week 18. Participants take summer holiday as required within this period.
36/91	18	"	All participants travel to NILU for a 3 day seminar and strategy meeting. Participants prepare short presentations of their methods and planned contribution to the project.
37/91-38/91	19-20	"	NILU compiles internal report and sends to participants at the end of week 20.



CALENDAR WEEK	PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY (ALL WEEKS MENTIONED ARE <u>PROJECT</u> WEEKS)
39/91	21	PREP.III	Trial standard distribution. Due to customs and transport formalities, standards will not be given to the participants during the meeting in week 18.
40/91-42/91	22-24	"	Participants calibrate distributed standards and local standards with at least two methods. Participants calibrate GC with different standards and different application methods.
43/91-44/91	25-26	"	Participants report results. The report and PAN standard samples (packed with carbon ice) are returned to NILU by air express parcel at the end of week 27.
45/91-47/91	27-29	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 29.
48/91-49/91	30-31	CAL.I	NILU prepares standards for distribution. Participants correct methods if necessary.
50/91	32	"	First intercalibration standard distribution.
50/91-51/91	32-33	"	Participants start calibration experiments (as in weeks 22-24).
52/91-1/92	34-35	"	Christmas holiday.

CALENDAR WEEK	PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY (ALL WEEKS MENTIONED ARE <u>PROJECT WEEKS</u> )
2/92-3/92	36-37	"	Participants complete calibrations (as in weeks 22-24).
4/92-6/92	38-40	"	Participants report results. The report and PAN standard samples (packed with carbon ice) are returned to NILU by air express parcel at the end of week 40.
8/92-10/92	42-44	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 44.
11/92-12/92	45-46	CAL.II	NILU prepares standards. Participants correct methods if necessary.
13/92	47	"	Second intercalibration standard distribution.
14/92-15/92	48-49	"	Calibrations begin.
16/92	50		Easter holiday.
17/92	51	"	Calibrations completed.
18/92-20/92	52-54	"	Participants report results. The report and PAN standard samples (packed with carbon ice) are returned to NILU by air express parcel at the end of week 54.

CALENDAR WEEK	PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY (ALL WEEKS MENTIONED ARE <u>PROJECT WEEKS</u> )
22/92-24/92	56-58	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 58.
25/92-33/92	59-67	"	Summer holidays. Available time should be used for method refinements and ambient PAN data preparation.
34/92-35/92	68-69	CAL.III	NILU prepares standards. Participants correct methods if necessary.
36/92	70	"	Third intercalibration standard distribution.
37/92-39/92	71-73	"	Calibrations.
40/92-42/92	74-76	"	Participants report results. The report and PAN standard samples (packed with carbon ice) are returned to NILU by air express parcel at the end of week 76.
44/92-46/92	78-80	"	NILU recalibrates the returned PAN standards by ion chromatography. NILU compiles internal report. Sends report to participants at the end of week 80.

CALENDAR WEEK	PROJECT WEEK	PROJECT PHASE	PROJECT ACTIVITY (ALL WEEKS MENTIONED ARE <u>PROJECT WEEKS</u> )
43/92-46/92	77-80	EV.I	Participants calibrate all ambient PAN data from weeks 1-76, tabulate them and perform quality control. Each participant sends his data with comments and suggested conclusions to all other participants by express mail at the end of week 80.
47/92-51/92	81-85	EV.II	Editors complete draft versions of publications and distribute to participants at the end of week 85.
52/92-1/93	86-87	"	Christmas Holiday.
2/93-6/93	88-92	EV.III	Participants evaluate draft reports and send their suggestions to the editors by express mail at the end of week 92.
-12/93	-98	EV.IV	Editors submit publications to appropriate journals.



**ENCLOSURE 20**

Letter from the co-ordinator to the CEC  
dated 8 May 1991





Commission of the European Communities  
Research Contract Policy and  
Management Division  
Rue de la Loi, 200

1049 BRUSSELS  
BELGIUM

Att.: Mr. J.R. Ruiz

Your ref.:

Our ref.:  
TK/MAa/O-91032

Lillestrøm, 8 May 1991

Dear Mr. Ruiz

EV4V-CT90-0222; START OF PROJECT

Thank you very much for the happy news that the contract has been signed by all participants and the Commission. We assume that the formal Operativ Commencement Date is 1 May 1991. The co-ordinator has defined week 19 of 1991 as project week 1. The work schedule has been revised to adopt it to this starting date and to allow for holidays in the appropriate periods. The revised schedule has been forwarded to the participants, and they have been instructed to commence work on phase PREP.I in week 19 of 1991.

The first deliverable will be the internal report of phase PREP.I, planned to be compiled in project week 6 (week 24 of 1991).

Furthermore, the participants have been informed that the advance payment from the Commission is expected to be forwarded to the co-ordinator not later than 10 June 1991, and that the appropriate sums immediately will be payed from the co-ordinator to the participants.

"SHADOW PARTNERS"

In article 8 of part 2 of the original project proposal three organizations that will collaborate on an informal basis, were referenced. Recently also Dr. Dollard of the AEA TECHNOLOGY in HARWELL, UK has asked to become involved in the project.

In view of ANNEX II, article 3, these "shadow partners" will probably be considered as subcontractors. However, their participation does not have direct financial implications for the project. They do not receive financial support from the project, they operate entirely with independent funding. They are in some cases technical consultants for the contractors. In other cases they will receive intercalibration standards and submit reports of independent intercalibration experiments.

Enclosures: Letter to participants  
dated 3 May 1991 containing reviced project schedule.

Vennligst adresser post til NILU, ikke til enkeltpersoner/Please reply to the institute.

Postal address:  
P.O.Box 64  
N-2001 LILLESTRØM, Norway

Office address:  
Elvegt. 52  
LILLESTRØM

Telephone: (06) 81 41 70  
Telefax : (06) 81 92 47  
Telex : 74854 nilu n

Bank: 5102.05.19030  
Postgiro: 0813 3308327



The co-ordinator has informed all the participants (contractors) that its intention is to forward copies of the entire project documentation also to such subcontractors. Results reported from such subcontractors will add to the scientific value of the project. If such subcontractors should default, the project will not be affected.

The co-ordinator's understanding of article 7.2 of Annex II of the contract is that no results or methods communicated between the participants are confidential unless this has explicitly been specified by the originator. The results and methods may therefore also be made available to the subcontractors mentioned above. The only implication the co-ordinator sees natural to impose on these subcontractors, is that they treat the disclosed materials as confidential and agree that their results from the intercalibration experiments are published through the STEP project.

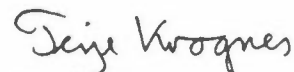
We hope that we have not misinterpreted the terms of the contract so that the project may benefit from the effort of the "shadow partners". If there should be any problem, please inform us as soon as possible. If other institutions should wish to join the intercalibration experiment, the co-ordinator will immediately inform the Commission.

Best regards



Harald Dovland  
Director

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Terje Krognnes  
Scientist

**ENCLOSURE 21**

Letter from the CEC dated 27 May 1991.

The official commencement date and the date of the first cost statements and technical reports are confirmed. A copy of common questions/answers about administrative matters is included.



27.05.1991 018852

DIRECTORATE-GENERAL FOR SCIENCE,  
RESEARCH AND DEVELOPMENT  
JOINT RESEARCH CENTRE

XII/B/2

REGISTERED

Research Contract Policy  
and Management Unit

Mr. Terje KROGNES  
Norwegian Institute for Air  
Research  
P.O Box 64

NW - 2001 LILLESTRØM

Ref. : Contract n° EV4V - CT90 - 0222  
(Inquiries: please contact Mr. W. Adam Brown, tel. 2/235.32.41,  
fax: 236.10.94)

Dear Mr. Krognes,

I enclose for information a copy of the above contract signed on behalf of the Commission on 10/04/91. In accordance with the terms of the contract, the official commencement date of the contract is 01/05/91.

The first technical progress report will be due on 30/04/92 and the first cost statement will be due on 30/04/92.

You should note that a technical progress report or reports should be submitted for the period of each reimbursement request.

As coordinator, you are responsible for the submission of the technical progress reports and cost statements of all the partners in the contract. All payments by the Commission will be made to you and you will be responsible for immediately transferring the appropriate amounts to the other partners; subject to any agreement amongst the partners, these should normally be proportionate to the costs incurred. Details of the amounts of the other partners taken into consideration for payments will be notified to you.

All general communications to the Commission relating to the execution of this contract or any proposed modifications should be made through you on behalf of all the partners.

I also enclose notes of guidance to assist in the administrative and financial management of the contract.

NILU	
Reception: 3/6-91 907	Number: 0-91032
PKM	TK
PB KAS	

./...

In order to be able to deal expeditiously with any enquiries, please quote the Commission's contract number on all correspondence which should be addressed to me in respect of administrative and financial matter.

If you have any problems concerning the contract please do not hesitate to contact me.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'W. Adam Brown', with a small flourish at the end.

W. Adam Brown  
Contracts Manager

QUESTIONS AND ANSWERS ON ADMINISTRATIVE AND FINANCIAL MATTERS

Please read this explanatory note carefully as it affects the reimbursements by the Commission. For circulation to staff responsible for submitting cost statements and scientific reports.

Introduction

This note is intended to serve as a guide for contractors and does not amend or substitute any requirements or provisions in the model RTD contracts. Each contractor must satisfy itself that all the requirements of the signed contract are complied with. References are to standard provisions in the model RTD contracts which may have been amended by specific provisions in the contract (each contractor should note any special conditions specified in Article 10 of the signed contract).

References to the coordinator should be construed as a reference to the contractor in the case of a monopartner contract.

The following summary checklist may assist in the execution of the work:

For the carrying out of the work, have you notified the Commission (normally through the coordinator) of:

- the commencement of the work under the contract?
- the name of the project manager?
- the name(s) of any proposed change(s) to the project manager or other personnel designated by name?
- any delays likely to affect the progress of the work, or force majeure?
- the need for any extension in time at least two months before the end of the project?

For periodic payments, have you:

- completed the prescribed summary cost statement, and has it been signed by the relevant financial officer and project manager?
- provided the appropriate details to support the categories of cost?
- attached, if necessary, the prescribed VAT form together with copies of the relevant invoices?
- submitted the relevant technical progress report?
- submitted any other documents or deliverables specifically required in the contract?

For the reimbursement of the 10% retention, have you:

- submitted a consolidated cost statement?
- submitted the draft final technical report?
- submitted the definitive final technical report?
- submitted a report concerning the exploitation and protection of results?
- submitted any other documents or deliverables specifically required in the contract?

Q 1) Does any action need to be taken by the contractor immediately after the signature of the contract in respect of the commencement of the project?

- A) Yes. The contractor must notify the Commission through the coordinator of
- the name of the project manager (responsible scientist) designated to be in charge of its part of the project,
  - the date of the commencement of the work under the contract.

Q 2) How does the Commission pay its financial contribution?

- A) To assist with the cash flow of a contractor, the Commission pays the amount of the advance specified in the contract following the signature of the contract by all parties. Thereafter it periodically reimburses its contribution of the actual cost of carrying out the project on the basis of the percentage contribution of the Commission as specified in the contract (normally 50% of full costs or 100% of marginal costs). Normally the reimbursements are made at twelve-monthly intervals.

For multipartner contracts, all payments are made to the coordinator who is responsible for their distribution amongst the contractors.

All payments are made in ECU to the bank account number specified by the coordinator when returning the signed copies of the contract. It is important to provide the Commission with the relevant information and to notify it of any changes.

Q 3) What action does a contractor need to take to obtain the financial contribution?

- A) No action is required for the payment of the advance fund as this is paid automatically. However, cost statements must be submitted, normally every twelve months (see Article 5 of contract for details), by a contractor for the periodic reimbursements.

Periodic technical progress reports are required at six-monthly or twelve-monthly intervals depending upon the specific RTD programme (see Article 4 of contract for details). Cost statements must normally accompany the technical progress reports.

Cost statements and technical reports must be submitted through the coordinator which also has responsibility for the overall financial management of the project and preparing consolidated technical reports.

Q 4) Does the cost statement need to be in a prescribed form?

- A) Yes. All cost statements must be accompanied by the financial summary annexed to this note (see Part H of Annex II of the contract). A separate invoice of a contractor is unnecessary. The summary must be signed by the appropriate financial official of a contractor and the project manager.

All cost statements must be submitted by each contractor through the coordinator. Details to support the cost summary must comply with the provisions of Parts D to H of Annex II to the contract. Unless copies of specific documents are required by the Commission, it is sufficient for a contractor to provide the required details and to retain the documents for a necessary audit control and review by the Commission at a later date.

in particular, note:

- for travel and subsistence, prior approval of the Commission is required for travel outside Western Europe.
- for durable equipment, the total to be charged to the project on the basis of the depreciation and the percentage allocation to the project should be included in the first cost statement after the purchase of the equipment. Any subsequent adjustment should be made in the consolidated statement. Equipment purchased solely for the project may be considered as fully allocated to the project, unless it is used for other purposes.
- for consumables, details are not required in the periodic cost statements. Generic descriptions are required for categories over 10,000 ECU with the final cost statement. However, some details may be required if VAT is to be paid by the Commission (see question 9).
- details must be provided of any adjustments to costs previously reported.

Q 5) Will the Commission reimburse the amount shown on the cost statement?

- A) A reimbursement may be withheld in whole or in part if
- the corresponding technical progress report or other report has not been submitted in accordance with the contract (including any time delay),
  - the technical progress report is not approved or has to be modified for scientific or technical reasons,
  - the prescribed cost summary has not been provided (or the time delay has not been respected),
  - the required details to support the costs have not been provided,
  - the costs statements of all the contractors in a project have not been submitted (unless the relevant contractors state they agree to wait until the next financial reporting period).

Q 6) Will any adjustments be made by the Commission to the amounts claimed by periodic cost statements?

- A) Yes
- if there are arithmetical errors in the cost statements,
  - if a contractor incurs costs at a significantly lower rate than foreseen (in these circumstances, it may be necessary for the Commission to deduct part of the advance fund already paid from subsequent payments),
  - for the final cost statement (the Commission will retain 10% of its total financial contribution as a retention until the submission of the final technical report in its definitive form and all other financial and technical documents required under the contract),
  - if an audit review reveals any overcharges by a contractor.

Q 7) Does the cost statement need to include all costs or only the contribution to be reimbursed by the Commission?

- A) Where a contractor has a marginal cost contract (normally only universities and other education institutions) only the contribution to be reimbursed by the Commission has to be indicated. In all other cases a contractor must set out the details for the total costs incurred on the basis of which the Commission contribution is calculated.



Q 8) Does any particular action need to be taken in respect of VAT (Value Added Tax)?

A) Value Added Tax which can be reclaimed directly or indirectly by a contractor from the relevant tax authorities should not be included in any cost statements. In those cases where any VAT paid cannot be recovered directly or indirectly, or if a charge for VAT must be made

- the VAT may have to be shown separately on the summary sheet;  
and
- the special VAT form appended to this note may have to be completed and copies of the relevant documents supplied. (See Article 32 of Annex II to the contract).

If the appropriate documentation is not completed and returned promptly with the relevant periodic cost statement, the Commission may refuse to reimburse the VAT.

Q 9) When should the special VAT form be completed and separate details of the VAT be provided?

A) For those Member States where no direct exemption is granted to contractors carrying out research for the Commission and there is no right for the contractor to recover directly or indirectly the VAT. However, even in these cases separate details of the VAT should be provided in the summary sheet and the form should be completed only where VAT for individual transactions exceeds the limits specified in the next paragraph. The Commission will reimburse VAT separately only for these transactions.

In Belgium, France, Italy and Luxembourg, a contractor has certain rights for direct exemption (see Article 32 of Annex II to the contract).

In other Member States the special VAT form must be completed, the total amount of VAT involved shown separately on the summary cost statement (item 11), and legible copies of relevant invoices provided as follows (ISO country codes used):

- DE - where the amount of VAT is greater than 50 DM
- DK - where the amount of the bill including VAT is 1,800 DKR or more
- ES - where the bill includes any amount of VAT
- GB - where the amount of the bill including VAT is UKL 50 or more.
- GR - where the amount of the bill including VAT is 5,000 DRA or more
- IE - where the amount of the bill including VAT is IRL 50 or more
- NL - where the amount of the bill including VAT is 500 HFL or more
- PT - where the bill includes any amount of VAT

In these Member States where VAT cannot be recovered by the contractor and each amount falls below the limits specified above, the total of any such VAT need not be shown separately and may be included in the summary of costs (items 1 to 7).

Q 10) Does any special action need to be taken if the research is delayed?

- A) Yes. A contractor must notify the Commission (normally through the coordinator)
- immediately if it is unable to obtain any permits or licences required for the project;
  - without delay of any event or circumstance liable to significantly affect the performance of the research;
  - of any force majeure affecting the work;
  - if any extension of the contract is necessary, either immediately this becomes known or, at the latest, at least two months in advance of the specified date for the completion of the contract. Consideration will be given to any such request in the light of all the circumstances.

Q 11) Does any special action have to be taken if the project manager or any other personnel specified by name in the work programme change?

- A) Yes. The Commission must be notified in writing, through the coordinator, of the name of the proposed replacement, together with appropriate details as to his qualifications. (See Article 1.5 of Annex II to the contract).

Q 12) Does any special action have to be taken at the end of the project?

- A) Yes. Each contractor must submit to the coordinator adequate information to enable the coordinator to submit:
- a final technical report in a draft form within two months of the end of the project;
  - a final report in its definitive form within one month of the receipt of any observations of the Commission or the acceptance of the draft report by the Commission;
  - a report specifying the intentions concerning the exploitation or commercialisation of the results of the project and action that may be taken to patent or protect the results;
  - a consolidated cost statement within three months of the end of the project.

Failure to submit these documents in the prescribed form, within the specified periods may result in the Commission suspending the final payments, or requiring the reimbursement of previous payments.

Q 13) How long should original documents and records relating to costs be retained by a contractor?

- A) They should be retained for a minimum of two years following the formal submission of the last document required under the contract (financial or technical). During this period the Commission, European Court of Auditors, or other persons authorised by them, may carry out audit reviews and controls.

