The fourth framework programme : a guide to participation in European Community research and development programmes 1994-1998 / Office of Science and Technology.

Office of Science and Technology

THE FOURTH FRAMEWORK PROGRAMME

A guide to participation in European Community research and development programmes 1994–98

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Department of Trade and Industry

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The EC Fourth Framework Programme for Research, Technological Development and Demonstration (1994–1998)

An overview

The Fourth Framework Programme (FP4) for research, technological development and demonstration was agreed by the Council of Ministers of Member States, in co-decision with the European Parliament on 26 April 1994. The activities covered by FP4 encompass all the European Community's research effort. They aim at improving the competitiveness of European industry and the quality of life, and to provide scientific and technical support for other common policies. FP4 is worth 13.1 billion ecu (approximately £10.9bn)*, with the possibility of a top-up of up to 0.7 billion ecu in 1996. It sets aims, priorities and a budget for research support for the period until 31 December 1998.

Subsidiarity was kept clearly in mind in the development of FP4. The programme encompasses research where there are significant advantages which can only be achieved through collaboration at a European level rather than by Member States acting on their own. EC R&D is designed to complement national research efforts.

FP4 is directed at pre-competitive research rather than that which is near to the market. However, there is increasing emphasis in FP4 on maximising the exploitation of research results and the transfer of technology. As a result, projects are expected to demonstrate a clear strategy for development of their research activities into new marketable products or better manufacturing processes.

The activities and themes of FP4 are set out on the following page.

* *In January 1996, the exchange rate for converting ecus/sterling was 1 ecu = £0.82 (£1 = 1.22 ecu).*

Amounts and Breakdown

		Millions of ecus
First Activity (*Research, Technological Development and Demonstration Programmes*)		11,381
Second Activity (*Co-operation with Third Countries and International Organisations*)		575
Third Activity (*Dissemination and Optimisation of Results*)		352
Fourth Activity (*Stimulation of the Training and Mobility of Researchers*)		792
MAXIMUM OVERALL AMOUNT		**13,100**
Indicative breakdown of the themes and subjects in the First Activity		
Information and Communication Technologies		3,626
• Telematics applications	898	
• Advanced communication technologies and services	671	
• Information technologies	2,057	
Industrial Technologies		2,125
• Industrial and materials technologies	1,818	
• Standards, measurements and testing	307	
Environment		1,150
• Environment and climate	907	
• Marine sciences and technologies	243	
Life Sciences and Technologies		1,674
• Biotechnology	588	
• Biomedicine and health	358	
• Agriculture and fisheries	728	
Energy		2,403
• Non-nuclear energy	1,067	
• Nuclear fission safety	441	
• Controlled thermonuclear fusion	895	
Transport		256
Targeted socio-economic research		147
TOTAL		**11,381**

The figures above were compiled in January 1996. They include 900 Mecu, distributed across the programmes which is allocated through direct action to the Joint Research Centre (JRC).

WHAT IS THE FOURTH FRAMEWORK PROGRAMME?

Background

The EC Fourth Framework Programme (FP4) was set up to promote the competitiveness of European industry and to enhance the quality of life of European citizens by forging links between countries and between industry and academia. These links are achieved through the funding of research, technological development and demonstration (RTD&D) activities in key technological areas, and are intended to enhance the development and exploitation of new ideas and to inform the development of policies within the European Union.

FP4 is divided into four parts, known as activities. The first activity contains 15 programmes each one of which is associated with a specific technology area. These programmes cover information, communication, industrial, energy and transport technologies as well as environment, life and social sciences. With the exception of a programme dedicated to nuclear fusion, all the programmes support shared-cost funding which is the most commonly used form of funding from FP4. This is where the cost of a R&D project is shared between the project participants and the European Commission, with the Commission paying up to 50% of the allowable project costs.

The second, third and fourth activities deal with issues that are common to all the specific research areas in the first activity, and which are important to promoting European competitiveness.

Co-operation with countries outside the European Community is covered by the second activity, while the third activity promotes innovation through the exploitation and dissemination of research results. The fourth activity aims to develop the quality of the science and technology workforce throughout Europe by supporting the training and mobility of researchers.

Applying for funding from FP4 generally involves sending a proposal to the European Commission giving a detailed description of a 2–3 year project that you intend to undertake in collaboration with partners from other European Member States. These proposals are judged by independent experts appointed by the Commission, and then ranked in order of quality alongside other proposals. Competition is strong, and although FP4 has a total budget of over 13 billion ecu, funds can only be allotted to projects involving the highest quality RTD&D.

The rest of this guide provides a more detailed description of FP4. This includes descriptions of all the specific research programmes, the methods of funding available, the application process, the points to consider before, during and after applying to FP4, and the special measures set up to help small and medium-sized enterprises (SMEs) to participate. The guide also includes a section covering Sources of Help (p. 31) and lists of the relevant contact points for further advice — see Annexes A and B.

Criteria for Involvement

Participation in projects funded by FP4 is open to all kinds of organisation, including industry of all sizes, universities, and research establishments (public or private). The principal eligibility criterion for most FP4 funding is that the projects must be **collaborative**. That is, a UK organisation must work with at least one other independent organisation from another country that is directly participating in FP4. Currently, this includes the other 14 Member States of the European Union, as well as Iceland, Liechtenstein and Norway. It is expected that Switzerland and Israel will join this list during 1996, and thereby become eligible partners for FP4 funding.

Provided this collaboration condition is satisfied, there is no limit to the size of a consortium. All other partners from countries that directly participate in FP4 will be eligible for funding from the Commission. Partners from countries that are not directly participating in FP4 will not generally be eligible for funding, though they may be eligible to participate unfunded subject to project-by-project approval. In all cases, however, the participants must ensure that the intellectual property remains with those countries that directly participate in FP4.

In addition, there are special arrangements to cover organisations from central and eastern Europe, the New Independent States of the former Soviet Union, developing countries and various overseas dependent territories. Organisations from these countries may participate with funding in the second activity (International Co-operation) of FP4. There are also limited funds to encourage organisations from these countries to participate in other FP4 specific programmes.

The other principal eligibility condition for shared-cost funding is that the research undertaken should be **pre-competitive**. That is, the research should not be too near-market. However, it should ideally have clear potential for exploitation in the market place 1–2 years after the FP4 project has been completed. As an example, a three year project may develop a pre-prototype and/or prototype which could subsequently be developed into a range of products after project completion.

The requirement for exploitation of the research results is a very important one, both during as well as after the project. Indeed, the Commission insist on a thorough exploitation plan in the proposal that maps out how the consortium intend to turn their results into marketable products.

Within most of the specific research programmes, there are also special measures set up to help small and medium-sized enterprises (SMEs). There are additional criteria for involvement in these Technology Stimulation Measures, which are described in a later section of the same name (p. 11).

The Benefits and Risks of Participation

The benefits of involvement in Framework research programmes have already been discovered by many UK companies, universities and research establishments. Under the Third Framework Programme, the UK had the largest number of participating teams of any country. Moreover, a sizeable proportion of UK organisations that win Framework funding subsequently reapply for grants for further collaborative research.

This is particularly significant in view of the risks that can arise when applying for funding from FP4. The preparation of a good proposal can involve much time and effort for each of the partners in a consortium, and especially the partner who leads the consortium. Potential applicants should be aware that the costs of this process are not refundable, whether or not they succeed in winning funding.

But the advantages of participation in an FP4 project can be considerable. In addition to the funding from the EC, the benefits of participation can include:

- shared development costs;
- shared expertise;
- shared risks;
- increased involvement in the European market place;
- faster product development;
- enhanced credibility of participants;
- creation of common standards that might be beneficial;
- development of a competitive advantage through research undertaken;
- access to additional research facilities and materials;
- development and training of staff.

Finding Partners

Finding suitable partners for an FP4 project can be a difficult problem, especially as one of these partners must be based in another country that participates directly in FP4 — see the section on Criteria for Involvement (p. 1) for a list of these countries. The majority of partnerships arise from prior contacts with organisations in the UK and abroad. However, if you do not already have suitable partners, there are several sources of help available — see the section on Sources of Help (p. 31) for more details.

Selecting Appropriate Partners

Applicants should look for partners who will complement them at all stages of participation in EC R&D, from initial application to commercial exploitation. In particular, it is very important that all the partners have a well-defined and significant role to play in the project. Evaluators need to be convinced of this, and will check that none of the partners appear to have been added for cosmetic reasons.

Partners can be from all types of legal entity, including companies of all sizes, universities and research establishments. Companies are advised to consider partners from a different stage in the supply chain, as well as horizontal collaboration. End-users can often make a valuable contribution to a project, especially in defining the exploitation plan, as can technology transfer experts. Many UK universities and research institutes are experienced in Framework research and often have good contacts with similar institutions in other countries.

Companies that are part of multinational organisations can collaborate with their sister companies in other countries. However, this is **not** sufficient to satisfy the principal eligibility criterion which insists on two **independent** partners from different eligible countries.

Academics should consider working with a commercial organisation to give them a better focus on exploitation. If UK academic organisations choose a UK company to work with before finding partners elsewhere in Europe, this can produce a partnership which is attractive to other potential consortium members.

If you are new to Framework, you are strongly advised to team up with an organisation that has already participated in a Framework project. You should also consider allowing an experienced organisation to lead if this is appropriate for your project.

Setting up a Consortium

The average FP4 consortium involves around 5 partners from 3 different countries. Consortia of only 2 partners may not be sufficient to make the project a success on a European scale. Large consortia may appear attractive for some projects, but they can be very difficult to manage, and are far more likely to break up before the project has finished. Whatever the size of your consortium, it is important that all the partners sign a Consortium Agreement that sets out the responsibilities of each partner and the distribution of the intellectual property arising from the research. Speak to your local Relay Centre for more advice on Consortium Agreements — see Annex B (p. 40).

If a proposal is accepted for funding, not all the partners in the consortium will have to sign the contract with the Commission, and thereby become *contractors*. Some organisations may wish to be *associated contractors* or *subcontractors* — for instance, if their contribution to the project is small. In both cases, the organisation will then sign a contract with one or more of the partners that are *contractors*. However, apart from sufficiently small subcontracts, this contract will generally need Commission approval. Regarding payment, the allowable costs incurred by *associated contractors* are reimbursed at the same rate as those of the *contractors* (i.e. up to 50%). *Subcontractors*, on the other hand, can receive up 100% of the costs of their work.

Methods of Funding

Most of the projects funded by FP4 are *shared cost actions* — the project costs are shared between the consortium members and the Commission. This method of funding is described below, along with the other methods available, and is followed by a definition of the costs that are allowable under FP4.

Shared Cost Actions

Shared cost actions include:

- **research and technological development projects** carried out by companies, research centres and universities. Grants of up to 50% of allowable project costs may be made. The range of grants available varies widely across the research areas within the specific programmes, covering projects costing 1000s of ecu to those over 1 Mecu. The UK programme contacts or the Commission can provide more specific details on these matters — see the section on Sources of Help (p. 31) and Annex A (p. 35) for details;
- **technology stimulation** measures aimed at encouraging SMEs to participate in various programmes. See the section on Technology Stimulation Measures (p. 11) for more details;
- **demonstration projects** jointly financed by the private and public sectors. The Community will contribute up to 40% of allowable costs. The percentage is progressively lower for projects closer to the market.

The allowable costs for research centres and universities may be different (see below).

Concerted Actions

These actions are intended to improve the co-ordination of individual projects carried out in Member States without funding the research itself. Instead, up to 100% funding may be provided for activities such as the co-ordination of :

- the inputs and outputs of existing R&D projects, particularly through networks;
- networks of researchers, manufacturers and users with common technological or industrial interests, which may lead to funding as "shared cost actions".

Direct Actions

Direct action covers the Community's funding of the full costs of the institutional research and support activities undertaken directly by the Joint Research Centre (JRC), and the research undertaken by the JET facility at Culham. These funds are not normally available to anyone else.

Specific Measures

Specific measures are projects of direct relevance to the development or application of Community policies and standards. The Commission will select researchers for specific measures, usually from existing networks, on the basis of their expertise and availability at the time required. The Community may fund up to 100% of the work it commissions under this heading.

Preparatory, Accompanying and Support Measures

These measures include: technology transfer projects (particularly involving SMEs); training fellowships; studies evaluating the management and delivery of Community R&D programmes; and assessment, in conjunction with the Targeted Socio-Economic Research programme, of the socio-economic impact and technological risk of projects seeking or receiving funding from FP4. These activities will be complementary to those carried out under the Third and Fourth Activities of FP4. The Community will pay up to 100% of costs.

Allowable Costs

In all of the above measures, the amount of funding provided by the Community is a percentage of the *allowable costs* of each project. Once a project has been accepted for funding, the contract between the project co-ordinator and the Commission will define precisely what costs are allowable for the project. This contract will normally be closely based on the Model Contract.

Allowable costs normally include direct costs such as personnel, equipment depreciation, subcontracts, computing, consumables, travel and subsistence and external assistance, and indirect costs such as overheads (e.g. administration, management, maintenance of buildings) and duties.

Costs that are not normally allowable include proposal preparation and negotiation (except when part of an SME Exploratory Award), interest payments, marketing, sales, distribution and entertainment. In addition, the Community will not support any profit elements in the costs charged.

Research centres and universities whose accounting systems do not accurately substantiate their costs normally receive up to 100% of additional (or marginal) direct costs and up to 20% of indirect costs. Additional direct costs differ from full direct costs by excluding the costs of permanent employees who work on the project. The costs of staff employed on temporary or external contracts are normally still covered.

VAT can only be reclaimed from the Commission for bills above 2500 ecu (approximately £2000) (VAT excluded).

Applying for Project Funding

Introduction — Calls for Proposals

To apply for funding from any of the specific programmes under FP4, consortia must respond to *Calls for Proposals* published by the Commission in the Official Journal of the European Communities (see page 33 for details of where to obtain the Journal). For most of the programmes, these calls are four times a year — usually on 15 March, 15 June, 15 September and 15 December. In general, each call for a specific programme will focus on certain programme areas rather than covering the whole scope of the programme.

After the Call there is normally a three month period, followed by a *strictly enforced deadline*, during which the Commission can be contacted for advice on the details of the Call. All proposals must be submitted during this period. However, in order for a proposal to be ready for submission, it is vital that applicants started working on it long before the Call for Proposals. Experienced participants advise that it takes *at least six months* to find partners and put together a good proposal.

Details of the timing and scope of each Call for Proposals are available well in advance from UK programme contacts, the INNOVATION Relay Centres and the CRAFT Focal Points. You can also find out about the specific calls for proposals by taking out a free subscription to CORDIS Focus from the Community Research and Development Service (see the section on Sources of Help (p. 31)).

The Six Phases of a Successful EC R&D Project

Phase 1 — Advance Preparation

Start your preparations by obtaining all the relevant information. Several of the UK government contacts have produced their own literature to provide essential details on their specific programme. For more information on the rules and procedures for applying, an information pack including an application form is available from the Commission — for address details see Annex A (p. 35). The Commission also produces a Work programme for each specific programme of FP4. This details all the research areas available, and provides dates of forthcoming Calls.

Discuss the outline of your ideas with the relevant programme contacts in the UK in order to find out which programme is likely to be the most suitable. While the project you propose will ultimately need to fit closely with the objectives of the programme to which you are proposing, your initial ideas may overlap with more than one of the specific programmes.

For example, an industrial project which incorporates environmental aspects may touch upon both the Industrial and Material Technologies programme and the Environment and Climate programme. It may be possible to package your ideas into two self-contained projects, which can be submitted separately. However, you should not attempt to split a single project across more than one programme. This would not only be extremely complicated due to differences between the programmes and the timings of their Calls for Proposals, but it would involve far more risk. Instead, proposals should be targeted at one section of one programme.

At this stage you will also need to find suitable partners and decide on who should be the lead partner. This partner will act as the *project co-ordinator*, and will be the only member of the consortium dealing directly with the Commission (Note that the project co-ordinator is often referred to as the prime partner or project leader). The partners should discuss the organisation and distribution of intellectual property rights generated by the project. Ideally, you should aim to have the bulk of the proposal ready by the time the Call for Proposals is announced.

The key points you should consider at this early stage are:

- **Allow plenty of time** — if possible, allow at least six months for a full proposal preparation;
- **Define your proposal** — does your proposal fit in with the objectives of the Call for Proposals that you are responding to? Check with the information packs which are available from the Commission. Are you sure your research has not been done before? Information on previous research done in your area may be held on library data bases that can be accessed through universities or trade associations — see the section on Sources of Help (p. 31) and the contacts in Annex B (p. 40);
- **Search for partners** — see the section on Finding Partners (p. 3) on where to find help. If you have not applied for EC R&D funding before, there is a strong case for your teaming up with an experienced partner who could act as project co-ordinator;

- **Consult widely**, including the UK programme contacts, the Relay Centres, or the CRAFT Focal Points, before preparing your proposal, particularly if you are new to EC R&D.

Remember that participation in EC R&D is a big investment. You must be sure that you have sufficient time and resources to develop and implement a carefully prepared proposal, particularly if you are acting as the project co-ordinator.

Phase 2 — Preparing a Proposal.

The high level of competition for FP4 funds means it is very important that sufficient time and care is spent on preparing the proposal. The workload should be distributed amongst the members of the consortium, all of whom should carefully read the appropriate programme's information pack (obtainable from the Commission). The project co-ordinator should thoroughly check the proposal documents and prepare a summary of these for discussion with the other consortium members.

A project proposal is usually submitted in three separate parts. Part I contains administrative and financial data. Part II contains the technical details of the proposal, along with the proposed work plan and sections addressing expected industrial benefits and project management techniques. Part III gives partnership details and details of intentions and plans concerning the commercial exploitation of the results of the project.

The key to a successful proposal is to meet ALL the Commission's requirements, and to make it clear in your proposal that you have done so. Key points and questions to be aware of are:

- **Research objectives** — Does the research you are proposing fit in with the pre-competitive criteria of FP4? Is your proposal sufficiently novel or at the leading edge of technology? Equally, is it realistic? Are the goals clear and the milestones set out? Have you geared your application towards the most appropriate programme? Is the research clearly linked to your own organisation's strategic objectives? Is the research likely to be of wide benefit to the European Union? This relates not only to the underlying importance of the research/technology in question but also to the means of developing and disseminating it.
- **Project management** — Have you identified the potential problems and/or risks you might face during the execution of the project? The quality of project management is an important concern when proposals are evaluated. Is the project costing realistic? The dangers of underestimating are perhaps even greater than those of overestimating.
- **Choosing partners** — Does your consortium involve at least two independent organisations from different countries that directly participate in FP4? Is the proposal well balanced in terms of the contributions to be made by the different members of the consortium. Are your partners content with their contributions? If some are not, they may drop out at a later stage. Have you alternatives? Have you considered associate contractor or subcontractor status for any of the partners? Are there any partners whose roles are not vital to the project? Evaluators will spot these, and may give the proposal a lower mark. Is the consortium a manageable size? Do you anticipate language problems?
- **IPR issues** — Have you agreed satisfactory arrangements for handling the Intellectual Property Rights (IPR) flowing from the research? It is vital that such issues are agreed before the start of the project through a Consortium Agreement between you and your partners. The Relay Centres (see Annex B (p. 40) for contact addresses) will be able to help you formulate a Consortium Agreement that covers these complex issues.
- **Exploitation issues** — Is there a clear pathway to the exploitation of the results? Is this pathway described clearly in the proposal? Exploitation of the research results is a crucial ingredient in a successful FP4 project. The exploitation stage will often begin before the FP4 project has concluded, and will continue after the project. Is there any user input to your exploitation plan? While this is not essential, some evaluators see user input as providing a clear focus to the exploitation. The Relay Centres will be able to advise you on the drafting of exploitation plans.
- **Consulting widely** — Have you sought advice on your draft proposal? When your ideas have begun to crystallise, the Commission services and UK

programme contacts are willing to discuss proposals with potential participants. There may be advantage in having made them aware of your interest before you submit an application. Have you consulted the Relay Centres or CRAFT Focal Points as appropriate? Have your foreign partners contacted the equivalent sources of help in their country?

- **Presentation** — Is your proposal clear and persuasive? Is it unnecessarily long? Some of the best proposals are quite short and punchy. Have you considered submitting a two page summary with your application? Make sure that your proposal does not fail because of poor presentation. The evaluators have many other projects to consider and will have a limited time to spend on each one.

Applications (together with at least five copies) should be submitted in order to reach the Commission well before the deadline for proposals, which is **strictly enforced**. Commission figures indicate that around 10% of proposals are rejected because they miss the closing date for applications.

Phase 3 — Proposal Evaluation.

After the deadline has passed, proposals are examined by an independent panel of at least three evaluators with expertise in the relevant area. The evaluators are drawn from industry, universities and research institutes, and appointed on the basis of their expertise and not as representatives of their organisation or country. Before they are allowed to start work, they are required to sign a confidentiality agreement. They are also obliged to inform the Commission if they have prior knowledge of any proposal or links with the applicants, after which they will be excluded from commenting on that proposal.

As the evaluators have a very large number of proposals to examine, it is particularly important that proposals should be clear and well argued. Their findings are presented to the relevant Programme Committee for the final decision. Commission figures indicate that this evaluation takes, on average, *14 weeks*. Bear in mind that sometimes the process can be much longer.

Evaluation stages:

i) *Initial Checks.*
Proposals are received, registered and given a reference number. The project co-ordinator should receive an acknowledgement of receipt within two weeks of the deadline for submissions. Before project proposals are given to the external experts, the Commission staff examine each proposal and eliminate those which do not fulfil the minimum legal criteria. Project co-ordinators of proposals rejected at this stage are informed immediately.

ii) *Individual Evaluation by Independent Experts.*
The technical and management details in Part II of the proposal (see previous phase) are assessed by individual evaluators. They are not allowed to discuss the proposals with each other. To ensure an unbiased assessment, Part II does not identify any of the applicants.

The proposals are marked against a wide range of criteria. Only when the evaluators have examined Part II do they have access to Part III (partnership details) which identify the applicants. At this stage the evaluators comment on the quality of the management and the collaboration arrangements proposed as well as the adequacy of the proposed budget.

The evaluators judge the proposals against the following criteria:

- the level of scientific and technical excellence;
- the technical credibility of the proposal;
- the added value of carrying out the research at a European level;
- the quality of project management. The evaluators want to see realistic timescales, good use of resources and a sensible delivery schedule;
- a sound strategy for eventually exploiting the results commercially;
- the realism of the financial planning. The evaluators will mark you down for overestimation of costs. On the other hand, if you underestimate costs you cannot claim them later;

- the competence of the proposers. The evaluators need to be convinced that the consortium is capable of carrying out the work;
- the effectiveness of the partnership. Every partner needs to have an important, complementary role for their presence to be justified;
- evidence of consideration of the social, economic and environmental impact of the project.

(These criteria are not necessarily arranged in order of priority).

iii) *Group Assessment by Independent Experts*
At this stage the overall merit of individual projects is discussed amongst the expert evaluators. The discussion is chaired by the Commission staff who try to form a consensus amongst the evaluators. The evaluators' overall markings are recorded and a consensus report is prepared which is signed by the relevant evaluators.

As a result of the evaluators' comments, each proposal is classified according to whether or not it would acceptable for funding, with the possibility that some modifications may be required. Those that would be acceptable are ranked in order of quality.

The evaluation process is designed to be fair and thorough. In order to increase their chances of success applicants should consider carefully what the evaluators are looking for in applications.

iv) *Final Selection*
A shortlist of projects is now selected by the Commission staff, based on the recommendations made by the external evaluators and the programme budget available. The Programme Management Committee (made of representatives of Member State Governments) is then asked to comment on the findings before a list of eligible projects and a list of selected projects is drawn up. The eligible projects are those projects which are considered worthy of funding whether or not they can be funded in this particular round; the selected projects definitely will be funded in this round. The Programme Management Committee does consider strategic and political factors, but their key objective is to ensure that the highest quality proposals are accepted.

After deciding which proposals are to be funded or put on a reserve list or rejected, the Commission sends a letter to each project co-ordinator within a few days informing them of the outcome of their application.

Phase 4 — Contract Negotiation.

Once a proposal is selected for funding, the project co-ordinator will receive a letter enclosing a timetable for finalising the contract, the evaluators' comments on the proposal and a set of contract negotiation forms. The average duration of negotiations between the co-ordinator and the Commission is *17 weeks*. During this important stage the project co-ordinator will have to complete the necessary forms and attend meetings with Commission officials to discuss the project.

The Model Contract
For most of the projects funded under FP4, the contract signed between the Commission and the project participants is based on a model contract, copies of which are available in the UK from the EC R&D team (tel: 0171–215 1611/13, fax: 0171–215 4127). The model contract was revised in early 1995 in order to make it shorter and simpler while providing increased protection of intellectual property rights.

The contract will list all the allowable costs and technical details of the project. It will also specify the timetable for payments from the Commission.

While negotiating the contract the Commission will bear in mind the evaluators' comments on the proposal. Participants need to be flexible at this stage, as it is not unusual for some of the technical content and cost details to change quite significantly from those in the original proposal. In order to help clarify the details of the contract negotiation, the project co-ordinator may wish to be accompanied by an accountant or a legal representative from their organisation. This is particularly true for organisations who are leading a project for the first time.

Most delays in contract negotiation occur because of delays in communication between project participants, or because consortium arrangements have not been fully worked out in advance. For this reason it is important that the partners sign a Consortium Agreement long before submitting a project proposal.

Once all contract details have been finalised, the Commission will send two copies of the contract for signature by each partner in the consortium. All the partners that wish to be contractors should sign these documents and return them to the Commission for signing. Associated contractors and subcontractors do not sign the contract with the Commission, though in most cases their contract with one (or more) of the contractors will need Commission approval.

The project usually starts on the first day of the month after contract signature by the Commission. This can be postponed slightly if the project consortium so wishes. However, consortia should be aware that only costs incurred after the starting date can be charged to the contract — see section on Methods of Funding (p. 4).

Phase 5 — Project Execution.

This is the phase when the research is undertaken. It can vary considerably in length, but is often around *three years*. The Commission monitors progress to ensure satisfactory project performance. The project co-ordinator is responsible for sending technical progress reports and costings to the Commission at regular intervals, usually about every six months. They must also prepare a detailed final report on the work and achievements once the project is complete.

Payments from the Commission

All contributions from the Commission are paid in ecu, usually to an account that is set up for the project and administered by the project co-ordinator. The timing and amounts of these payments will be agreed during the contract negotiation, but normally fall into three parts:

Within two months of signature of the contract, an advance payment is made of between 25% and 50% of the Community's contribution to the project;

Instalments are then paid at six or twelve-monthly intervals. These payments are made within two months of the approval by the Commission of the technical progress report and cost statement sent by the project co-ordinator;

The last payment making up the balance of the Community contribution (between 10% and 30% of the total Community contribution) is withheld until the Commission has received and approved the final reports.

If the interim or final cost statements are not submitted by the project co-ordinator, the Commission can withhold some or all of the payment for that period. In addition, if the reported level of costs is substantially less than that foreseen in the proposal, the Commission may, in exceptional circumstances, reduce the interim payments or ask for reimbursement following the end of the project.

Phase 6 — Project Exploitation.

Although the exploitation phase is last in this list, it should not be regarded as the least important! Nor should it be assumed that the exploitation of the project's results should only occur after the project has finished. It should be in the minds of the consortium members before the proposal has been submitted and start taking place throughout the course of the project as exploitable results are generated.

The intellectual property rights connected with these results will belong to the consortium members who carried out the associated research — the protection of these rights will have been agreed in the contract. The consortium is then contractually required to exploit the results in the interest of the Community. They must freely grant licences and user rights between themselves. They must also grant licences on a royalty basis to others needing access to the results.

Exploitation of results may be quite varied, and includes:

- the development of pre-prototypes and prototypes;
- the adaptation and/or validation of technologies;
- pilot-plant schemes;
- licensing agreements;
- the search for commercial partners;
- the search for finance including venture and risk capital;
- pre-production manufacturing;
- technology transfer.

Some of this will not occur until after the project has officially ended, though the Commission will look for evidence in the proposal that such activities are being considered.

Technology Stimulation Measures : Help for SMEs

Small and Medium-sized Enterprises (SMEs) are recognised to play a vital role in generating and shaping the technology needs of the EU. Yet, although they are eligible to take part in all the research, technological development and demonstration activities available under the Framework Programmes, their share of the funding from FP3 was only about 15%.

In order to encourage more SMEs to take part in R&D activities under FP4, special measures have been set up in most of the specific research programmes. These measures, known as Technology Stimulation Measures, recognise that many SMEs have no experience of collaborative research and very few have the facilities to undertake a research project in-house.

Stage 1: Exploratory awards — These awards, which are open to groups of at least two SMEs, cover up to 75% of the cost of preparing a complete research proposal. This study should last less than a year, and lead to a proposal to any of the collaborative activities under FP4, including Cooperative awards. Exploratory awards can be taken in two parts. The first provides up to 22,500 ecu from the Community for help with proposal preparation (e.g. partner search, development of exploitation plan). The second provides up to 22,500 ecu to explore the technical feasibility of a research concept.

Stage 2: Cooperative awards — These awards are intended to enable groups of at least four SMEs, with little or no R&D capacity, to solve technical problems by engaging a third party to carry out research on their behalf. The awards, up to 1 Mecu, cover up to half of the research costs, with the SMEs providing at least two thirds of the remainder. The third party can be a company, university or research centre, but it must not be affiliated to any of the SMEs. Normally it will receive 100% of the cost of its work, though all intellectual property rights remain with the SMEs who proposed the project. In addition, the core group of SMEs can invite other organisations (e.g. large companies) to join the project. These organisations can provide up to a third of the costs not covered by the Community.

Cooperative awards can be applied for with or without the Exploratory award phase.

In order to further simplify the application process for SMEs, both measures are available on open call. This means that proposals can be submitted at any time, rather than being constrained by the fixed times and subjects associated with the conventional calls for proposals. They will then be evaluated in batches at regular intervals.

Eligibility criteria

As these awards are only open to application from groups of SMEs, all the companies in a consortium must individually satisfy the following SME criteria:

- fewer than 500 employees;
- annual turnover of less than 38 Mecu;
- less than 33% owned by a company which is not an SME — this does not apply to ownership by financial institutions or venture capitalists.

In order for a consortium of SMEs to be eligible, the rules in the section on Criteria for Involvement (p. 1) must also be satisfied (e.g. two of the SMEs must be from different countries that directly participate in FP4), as well as the following conditions where they apply:

- Exploratory awards are only open to SMEs who have not previously received an Exploratory award;
- SMEs having their principal activity* in consultancy are not eligible to apply for awards from the IMT, SMT, Environment and MAST programmes;
- SMEs applying for awards under the IMT and SMT programmes must be "industrial SMEs". This means their principal activity* must be in manufacturing, processing, mining or construction.

(i.e. at least 50% of full time employment equivalent.)*

The criteria for involvement in these measures by SMEs from countries that are not directly participating in FP4 are the same as the equivalent criteria for involvement in shared-cost projects — see the section on Criteria for Involvement (p. 1) for more details.

PROGRAMME	STAGE 1	STAGE 2	OTHER	COMMENTS
Telematics Applications			✓	Various non-grant support measures available.
Advanced Communication Technologies			✓	Scheme whereby SMEs can join existing consortia.
Information Technologies	✓	✓		Consult IT information pack for further details.
Industrial & Material Technologies	✓	✓		Only open to industrial SMEs — see page 11.
Standards, Measurement & Testing	✓	✓		Only open to industrial SMEs — see page 11.
Environment & Climate	✓	✓		
Marine Sciences & Technology	✓	✓		
Biotechnology	✓			Exploratory awards known as "preparatory awards".
Biomedical & Health	✓	✓		Exploratory awards known as "preparatory awards".
Agriculture & Fisheries	✓	✓		
Non-Nuclear Energy		✓	✓	Consult N-NE information pack for further details.
Nuclear Safety & Safeguards	✓	✓		
Transport	✓			
Socio-Economic Research				

Funding conditions

In the case of the Cooperative awards, the funding provided by the SMEs can be paid as cash contributions to the third party RTD performer, and/or as "contributions in kind" e.g. costs of labour, materials provision and purchase, testing, travel etc. Other rules and definitions relevant to funding (such as the definition of allowable costs) are the same as for shared-cost projects — see the section on Methods of Funding (p. 4).

Getting help & the CRAFT Network.

In order to help SMEs participate in the Technology Stimulation Measures, a network of advisory centres, or *Focal Points*, is currently being set up throughout Europe. This network, known as the CRAFT network can provide free advice to SMEs on applications to Exploratory and Cooperative awards. In the UK, the network comprises a National Focal Point that acts in a co-ordinating role, several Thematic Focal Points that are associated with specific programmes, and Regional Focal Points that cover geographical regions of the UK. A list of all the UK Focal Points appears in Annex B (p. 40).

The CRAFT Focal Points will also be able to provide advice on finding partners. Other sources of help with partner searching are listed in the section on Sources of Help (p. 31). In addition, an information pack on the Technology Stimulation Measures is available from the CRAFT National Focal Point, or directly from the Commission's SME Co-ordination Unit, DGXII, Rue Montoyer 75, B1040 Brussels (tel: 00 322 295 7175, fax: 00 322 295 7110).

Applying for Technology Stimulation funding.

Although the timescales of applying for and executing a Technology Stimulation project are a lot shorter than the equivalent timescales for shared-cost projects, the application process is very similar. The open calls for proposals mean that there is not the same time constraint for preparing a proposal. However, it is best to start preparing your proposal early and aim to submit it just before one of the interim evaluation dates — contact the CRAFT Focal Points for details of these. This will minimise the time your proposal will wait before being evaluated.

Application forms are available from the CRAFT Focal Points or directly from the Commission.

Telematics Applications

Introduction

Telematics is the Commission's term for the exchange and processing of electronic data of all kinds — including multimedia — between, networked computer systems. Examples of such systems include services such as distance training, teleworking, telemedicine, and remote management of road or air traffic. The aim of the telematics programme in FP4 is to use information and communications technologies to solve real problems identified by users in Member States leading to lead to an improvement in the quality of life and working conditions, better organisation of work within businesses and administrations, and a new impetus to economic growth and which will boost employment, consolidation of the internal market, and the strengthening of the economic and social cohesion of the European Union.

In FP4 telematics research is being directed in three new ways: the emphasis shifts from data to multimedia telematics, covering all distributed and interactive multimedia applications; even more importance is attached to user requirements; and particular emphasis is put on finding cost-effective solutions.

Scope

Actions under the Telematics Applications Programme are divided into five broad themes:

- Area A : Telematics for services of public interest (which includes the administrations and transport work sectors)
- Area B : Telematics for Knowledge (the researchers, education & training and Libraries sectors)
- Area C : Telematics for improving employment and the quality of life (the urban & rural areas, disabled & elderly and environment sectors)
- Area D : Horizontal RTD activities (the telematics engineering, language engineering and information engineering sectors)
- Area E : Programme support actions (issues common to several areas of the programme — awareness, standards, training, etc)

The main aims of the programme, for which the total budget is almost 900 million ecu, are:

- to develop means for improving the economics and efficiency of public services by enabling administrations to implement the results of telematics research;
- to continue to apply telematics to transport systems, building on work already completed in road transport and broadening out to all modes of transport, particularly air;
- to use telematics to enable European researchers to cooperate and work together regardless of where they are in the European Union;
- to research and develop multimedia open and distance learning systems;
- to support projects to increase the availability of library resources across Europe and to connect libraries with the European information and communications infrastructure;
- to use telematics solutions to permit the establishment of new economic activities, reinforce traditional activities and to improve living conditions in rural and urban areas with inadequate social and cultural infrastructures;
- to achieve improvements in the health of the citizens of Europe through the use of information systems and telecommunications, for example by assisting the clinical professions in coping with rapid advances in knowledge and the increasing complexity of clinical decision-making;
- to use information and communication technology to improve the autonomy and quality of life of disabled and elderly people, and to facilitate their integration into society;
- to look at possible uses of telematics in environmental management and monitoring, environmental emergency handling and the provision of integrated environmental information;
- to increase the possibilities for communication in European languages by integrating spoken and written languages;
- to develop new applications in electronic publishing, information dissemination and information retrieval; and
- to provide a set of methods and tools that will enable developers to build telematics applications as efficiently as possible, to identify and analyse changes that need to be made in the user environment in order that telematics systems can be successfully implemented, and to look at cross sectoral issues such as data protection and intellectual property rights.

Relevant information packs on the programme are available from the Commission, following the publication of calls in the Official Journal.

What Kind of Support is available?

Support will be available primarily for shared-cost demonstration and validation activities. Project proposals should start with market research studies; must be of a scale sufficient to provide a convincing demonstration; will be favoured if cross-sectoral; should treat interoperability as a key issue; should place emphasis on generic content; and should include plans for the exploitation of results.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Advanced Communications Technologies and Services (ACTS)

Introduction

The programme will build on the RACE Programme in Framework 3 which focused on integrated broadband networks and demonstrations of how services could exploit such networks. In FP4 greater emphasis will be placed on the needs of the users of telecommunications services. In addition, project consortia will be expected to use the communications platforms and experimental facilities designated in each country as 'national hosts' for user-based trials.

The main aims of the Advanced Communications Technologies and Services programme are:

- to foster collaboration between telecommunications operators, manufacturers, researchers and users within Europe;
- to develop new technologies including devices and systems;
- to devise new methodologies leading to better manufacturing and standards; and
- to encourage new applications for communications.

Scope

An information pack on the programme is available from the Commission. The programme is divided into seven broad themes:

- A : interactive digital multimedia systems and services, including
  - stimulating the widespread introduction of European digital multimedia communications services by the year 2000.
- B : photonic technologies, including
  - research supporting the introduction of integrated photonic systems; and
  - developing the technological basis for deployment of fully optical networks — transparent highways — by the year 2000.
- C : high speed networking, including
  - provision of integrated, high-speed, multi-gigabit networks to leading edge users in European industry, research organisations and universities by the year 2000; and
  - preparation for the Europe-wide mass deployment of such networks.
- D : mobility and personal communications networks, including
  - operational trials and technological aspects of integrated fixed and mobile broadband networks that have a direct bearing on the provision of enhanced personal communications services; and
  - accommodation of the foreseeable demand for personal communications beyond the year 2000.
- E : intelligence in networks and service engineering, including
  - technology for flexible and real-time management of communications assets;
  - reflecting the requirements of users, service providers and network operators; and
  - developing systems that can evolve in response to user needs, market development and changes in technology.
- F : quality, security and safety of communications services and systems, including
  - flexible management of security in an open, world-wide network and service environment; and
  - fail-safe mechanisms, self-healing and self-repairing networks and services.
- G : horizontal actions, including
  - bringing together work in each of the six areas above;
  - co-operation with other research initiatives and actions funded under other programmes;
  - co-ordination on standards; and
  - concerted actions and accompanying measures concerning social and economic impacts of advanced communications.

What kind of support is available?

Support will be available primarily for shared-cost activities, although concerted actions and certain other measures may also be funded.

How much funding is available?

The total Advanced Communications Technologies and Services budget is 671 Mecu. The indicative funding breakdown is as follows:

Area

A. Multimedia 26%
B. Photonics 16%
C. H.S. networks 12%
D. Mobility 18%
E. Intelligent networks 16%
F. Quality, security and safety 7%
G. Horizontal 5%

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Information Technologies (IT)

Introduction

The Community's IT programmes have, since 1984, aimed to develop enabling technologies, to foster collaboration and to lay the foundations for European standards. Generally known by the acronym 'ESPRIT', the work has played an important part in improving the international competitiveness of the European IT industry. In the IT programme for 1994–8 the main focus is on the infrastructure that will provide the basis of the information society of the future. The areas of research have been chosen with a view to ensuring the competitiveness of industry, to contributing to growth and employment in the European Union, and to enhancing the quality of life.

The main aims of the IT programme are:

- to ensure that Europe's professional software developers continue to have the skills, capabilities and key technologies to provide software intensive systems of outstanding quality and relevance;
- to encourage better and more competitive technologies for the manufacture and use of electronic components and subsystems;
- to support strategic research and technological development in the generic information technologies that underpin multi-media end-user systems and applications;
- to support long term research with a view to maintaining the potential for the next wave of innovation and to replenishing scarce expertise in key areas.

Scope

An information pack on the programme is available from the Commission. The programme is divided into five broad themes:

- A : software technologies, including
  - applications such as control and monitoring in real time, enterprise systems, consumer services and products;
  - development and limited trial of 'prototypes' in classical R and D projects.
- B : technologies for electronic components and subsystems, including
  - developing new microelectronics (including semiconductors) and electronic and optoelectronic components and subsystems and improving their design, manufacture and testing, with an emphasis on communications, automotive and consumer electronics and industrial applications.
- C : multimedia systems, including
  - strategic research and technological development in generic information technologies that underpin multimedia end-user systems and applications, including integrated personal systems;
  - systems integration pilots targeted at applications in industry and the home, linked to multimedia support centres; and a multimedia forum to coordinate with other EU activities and provide guidance on world-wide collaborations.
- D : long term research, including
  - thematic networks of excellence that will provide frameworks for the coordination of research and technological development, technology transfer and a common infrastructure;
  - advanced research and technological development projects involving a high but assessable technological risk and that could improve industrial competitiveness, perhaps by addressing problems identified elsewhere within the programme; and
  - projects that could produce breakthroughs with long term industrial implications.

What kind of support is available?

Support will be available primarily for shared-cost activities, although concerted actions and certain other measures will also be funded. Specific areas to be addressed by concerted actions, either through the co-ordination of research projects already funded from non-Community sources or through the co-ordination of related shared-cost projects under this Programme, will be identified in the calls for proposals and the associated work programme.

Up to 12% of the shared-cost actions budget will be reserved for SMEs.

How much funding is available?

The total Information Technologies budget is 2011 Mecu, of which 21 Mecu is earmarked for the Community's Joint Research Centre.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Industrial and Materials Technologies (IMT/BRITE-EURAM)

Introduction

The programme provides support to industry, academia and research organisations for pre-competitive collaborative and cooperative research in materials, design and manufacturing technologies. In addition, the programme in FP4 will include a special emphasis on transport sectors — aeronautics, automobiles, ships and trains.

The main aims of the Industrial and Materials Technologies programme are:

- to stimulate technological innovation;
- to encourage traditional sectors of industry to incorporate new technologies and processes;
- to promote multi-sectoral and multidisciplinary technologies;
- to develop scientific and technological collaboration.

Scope

Full details of the programme will be found in the information pack, which is available from the Commission or the UK BRITE-EURAM Helpline. The programme is divided into three broad themes:

- Area 1 : production technologies, including:
  - mining, construction and processing, general manufacturing and cleaner processing;
  - development of clean production technologies;
  - rational management of raw materials;
  - safety and reliability of production systems; and
  - human and organisational factors within production systems.
- Area 2 : materials and technologies for product innovation, including:
  - materials engineering;
  - new methodologies for product design and manufacture;
  - reliability and quality of materials and products; and
  - technologies for recovering products at the end of their life cycle.
- Area 3 : technologies for transport, including:
  - cars, aeroplanes, ships and trains;
  - design and systems integration;
  - technologies for improved efficiency and environmental protection; and
  - technologies for safety and operation.

Targeted research actions of industrial interest are encouraged. These actions are given in the detailed Workprogramme and concentrate on environmental aspects of industrial materials and production technologies.

What kind of support is available?

The bulk of the programme will consist of collaborative industrial research projects, costing from 1 to 7 Mecu (exceptionally more if there is a strong European dimension) which must include industrial funding equivalent to at least 60% of EU funding. Projects involving collaborative basic research of industrial relevance, from 0.5 to 1.5 Mecu (exceptionally more if there is a strong European dimension) must include industrial funding equivalent to at least 15% of EU funding. Both types of project must involve at least 10 man-years of effort and last between two and four years.

The programme includes Technology Stimulation Measures for SMEs. Following an outline proposal, SMEs can apply for an explanatory award of up 75% of total cost, not exceeding 45,000 ecu to cover the costs of preparing a complete proposal for either a cooperative research project or a full collaborative research project as above. Cooperative research awards, from 0.3 Mecu are available for SMEs to sponsor work with a research provider when they do not possess their own facilities.

Support is also available for the coordination costs of thematic networks, which bring together research in well focused areas that is funded from other sources. Awards of up to 45,000 ecu are available for an exploratory phase and up to 20,000 per partner for the implementation phase.

Under the accompanying measure "Training-Industrial Research Experience", qualified young engineers and scientists can receive support to work with one of the industrial partners in a current BRITE-EURAM project for a period between 12 and 24 months.

How much is available?

The total Industrial and Materials Technologies budget is 1617 Mecu, for:

- collaborative projects;
- 50% of full costs for industrial enterprises and research organisations 100% of additional costs for educational establishments;
- thematic networks;
- up to 100% of additional costs for coordination activities;
- stimulation measures for SMEs (75% of total costs up to 45,000 ecu for exploratory awards and 50% of total costs for cooperative awards).

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Standards, Measurements and Testing (SMT)

Introduction

A harmonised system of accurate, reproducible and repeatable measurements and analyses will be developed within the programme. The work will provide European industry with the measurement tools it needs to undertake collaborative research and technological development and to better define and control the quality of its products. It will help to develop the infrastructure for harmonised measurement, including accreditation schemes and written European standards essential for the mutual recognition of results and certificates upon which the internal market of the Union is based.

The main objectives of the Standards, Measurements and Testing programme are:

- to improve the competitive position of European industry by promoting better measurements and quality control;
- to promote the research and other technical support required for the implementation of Union policies such as the single market, environment, health and protection of external frontiers; and
- to promote research in support of the European committee for standardisation (CEN), the European committee for electro-technical standardisation (CENELEC), the European telecommunications standards institute (ETSI) and other European bodies setting quality standards.

Scope

An information pack on the programme is available from the Commission. Full details of the programme will be found in the information pack. The programme is divided into three broad themes:

I : measurements for quality of European products, including

- development of measurement methods and instrumentation required by researchers;
- development of generic measurement and test methods, reference materials and instrumentation required in the course of product development; and
- development of generic measurement methods, standards and instrumentation required in production to improve product quality/production cost ratios.

II : research related to written standards and technical support to trade, including

- research on measurement methods and instrumentation required for legislative purposes;
- support for sectors of European industry in the form of written standards to encourage innovation, integration, trade or the adoption of advanced manufacturing processes;
- development of a European measurement infrastructure based on traceability to agreed standards;
- technical support for mutual recognition and accreditation systems and networks such as the European Accreditation Liaison (EAL) and the European organisation for Testing and Certification (EOTC); and
- improved methods of sampling and measurement to protect external frontiers against illegal, sub-standard and counterfeit materials and for assessing duties.

III : measurements related to the needs of society, including

- improvements in measurements of health and safety including monitoring of exposure of workers to chemical and biological agents, public and animal health, food hygiene and the safety of products;
- new and improved techniques for monitoring the environment to help implement legislation and support the European Environmental Agency; and
- development and harmonisation of measurements used in forensic science and narcotics control.

What kind of support is available?

Support will be available primarily for shared-cost activities, although concerted actions and certain other measures will also be funded. Specific areas to be addressed by concerted actions, either through the co-ordination of research projects already funded from non-Community sources or through the co-ordination of related shared-cost projects under this Programme, will be identified in the calls for proposals and the associated work programme. 10% of the shared-cost actions budget will be reserved for SMEs.

How much funding is available?

The total Standards, Measurements and Testing budget is 184 Mecu. It is likely that the funds will be divided as follows:

- theme I, 35–45%;
- theme II, 30–40%;
- theme III, 20–30%.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Environment and Climate

FIRST ACTIVITY

Introduction

As with the Environment Programme under FP3, the Environment and Climate programme covers research in both the natural and social sciences with particular emphasis on problems of a global nature. The new Programme will give increased priority to work relating to Earth observation from space. UK participation in the equivalent FP3 programme was high, especially by groups from research institutes and academia.

The main aims of the Environment and Climate Programme are:

- to observe, characterise and improve understanding of the basic processes of the Earth's natural systems and the ways in which they interact;
- to identify and assess the adverse effects of human activities on these;
- to contribute to the development of a sound scientific basis for the definition and execution of the Union's environment policy; and
- to stimulate the development of generic environmental protection technologies, techniques and services in order to improve industrial competitiveness and to boost economic growth in a sustainable manner.

Scope

An information pack on the programme is available from the Commission. This includes a work programme document setting out the detailed programme objectives and research tasks against which proposals will be invited. Please note that the work programme is to be revised during the first half of 1996. The programme is divided into four broad themes:-

- A : research into the natural environment, environmental quality and global change, including
  - climate change and impact on natural resources; and
  - atmospheric physics and chemistry, interactions with the biosphere and mechanisms of environmental change impacts.
- B : environmental technologies, including
  - instruments, techniques and methods of monitoring the environment;
  - technologies and methods of assessing risks to and protecting and rehabilitating the environment; and
  - technologies to forecast, prevent and reduce natural risks.
- C : space techniques applied to environmental monitoring and research, including
  - methodological research and pilot projects;
  - research and development work for potential future operational activities; and
  - the Centre for Earth Observation, contributing to the establishment of a co-ordinated, decentralised European earth observing system (research tasks to be defined in early 1996).
- D : human dimensions of environmental change, including
  - socio-economic causes and effects of environmental change;
  - economic and social responses to environmental problems;
  - integration of scientific knowledge and economic and social considerations into the formulation of environmental policies; and
  - sustainable development and technological change.

What kind of support is available?

Support will be available primarily for shared-cost activities, although concerted actions and certain other measures will also be funded. Specific areas to be addressed by concerted actions, either through the co-ordination of research projects already funded from non-Community sources, or through the co-ordination of related shared-cost projects under this programme, will be identified in the calls for proposals and the associated work programme.

Special terms are available for the participation of SMEs. Details of how to take advantage of this type of funding, along with the criteria that will need to be met, is set out in the Commission's information pack.

How much funding is available?

The total Environment and Climate budget is 907 Mecu of which 567 Mecu will be available for the research outlined above. The remainder has been earmarked for direct funding of the European Commission's Joint Research Centre.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Marine Science and Technologies (MAST)

Introduction

The programme aims to foster the scientific knowledge and technological development necessary to understand how marine systems function in order to preserve the marine environment while using the oceans sustainably, and to determine the role of the global ocean in controlling climate change. Compared with its predecessor the programme hopes to attract more industrial participation. It will contribute to the operating costs for research ships for some projects that contribute to the cohesion of the European marine science community.

The main objectives of the Marine Science and Technology programme are:

- to study the dynamics of marine systems in the seas and oceans around Europe;
- to study marine systems, including exploited systems, with a view to cooperative management of the seas and coasts of Europe;
- to develop generic technologies and advanced systems for observing, monitoring and managing marine resources; and
- to improve cooperation between European scientists and to enhance national and international projects through the transfer of expertise and knowledge and better use of facilities.

Scope

An information pack on the programme is available from the Commission. Full details of the programme will be found in the information pack. The programme is divided into four areas:

- A : marine science, including
  - circulation and exchange of water masses;
  - studies of the resilience of benthic and pelagic ecosystems;
  - studies of biodiversity as a means to understanding marine ecosystems;
  - biogeochemical processes and fluxes across the sea/air interface;
  - fluxes across the water/sediment interface and marine sedimentary processes; and
  - extreme marine environments and regional seas research.
- B : strategic marine research, including
  - coastal processes and morphodynamics;
  - shelf sea ecosystems;
  - monitoring, forecasting and management of shelf sea and coastal zones;
  - coastal structures and natural defences;
  - use of remote sensing in observation and management of the coastal zone; and
  - links with the environment and climate programme.
- C : marine technology, including
  - benign techniques to observe the ocean, the sea floor and their biota;
  - improved underwater positioning, navigation and communication systems;
  - advanced underwater imaging systems;
  - exploitation of novel marine bioactive resources;
  - marine geotechnic methods and instruments; and
  - advanced systems such as unmanned platforms, vehicles and autonomous systems, oceanographic measuring and sampling equipment, and marine biosensors.
- D : supporting initiatives
  - improve cooperation between European Scientists and enhance national and international projects through the transfer of expertise and knowledge and the better use of facilities. Topics for action will be: training fellowships and courses; review of standards and training for scientific divers and others specialised fields.

What kind of support is available?

There will be two methods of funding available to businesses, shared cost and concerted action funding. Further details will be found in the information pack. Two measures will encourage the participation of small and medium sized enterprises (SMEs): exploratory awards will contribute 75% of the cost or up to 45,000 ecu towards the exploratory phase of a research or technology project; co-operative research awards will allow groups of SMEs to engage others to undertake research on their behalf. After the initial call, proposals for these measures may be submitted at any time.

How much funding is available?

The total Marine Science and Technology budget is 226 Mecu. The breakdown between the areas is expected to be as follows:

A. Marine science 40%
B. Strategic marine research 23%
C. Marine technology 30%
D. Supporting initiatives 8%

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Biotechnology

FIRST ACTIVITY

Introduction

Life sciences and technologies under the Fourth Framework Programme are to be supported through three associated specific programmes: Biotechnology, Biomedicine and Health and Agriculture and Fisheries. The latter two programmes aim to promote biotechnology applications in their respective sectors, while the Biotechnology programme itself underpins these efforts by focusing on basic research into living processes which will provide key information from which new industrial and social benefits can be derived. The main objective of the programme is to promote the transfer of knowledge of the understanding of living systems to man-made biological processes, by

- applying knowledge arising from molecular and cellular biology research across Europe; and
- concentrating efforts in biotechnology where cooperation at a European level can readily be translated into industrial and social benefits.

Scope

Once the Commission publishes a call for proposals in the Official Journal of the European Communities, an information pack will be available, describing in detail the scientific and technical coverage of the call, application procedures, eligibility criteria and selection procedures. The applications forms will also be included. This package is only available from the Commission in Brussels (you can send a fax to the Commission Secretariat detailed below).

The programme is divided into eight Areas:

- 1. Cell Factories (15–21% of budget)
  - Biological Components
  - Biochemical Engineering
- 2. Genome Analysis (13–19%)
  - Sequencing
  - Function Search
  - Computer-based Comparative Analysis
- 3. Plant and Animal Biotechnology (22–30%)
  - Plan molecular and cellular biology
  - Animal physiopathology
- 4. Cell Communication in Neurosciences (4–8%)
- 5. Immunology and Transdisease Vaccinology (5–9%)
  - Immunology and Immunotechnology
  - Transdisease Vaccinology
- 6. Structural Biology (9–13%)
  - Structure Function Relationships
  - Interface of Structural Biology with Electronics
- 7. Prenormative Research (10–16%)
  - Biodiversity and Social Acceptance
  - In Vitro Alternatives to Animal Experiments in Pharmatoxicology
  - Biosafety
  - Biotechnology for the Environment
  - Biodiversity
  - Social Acceptance
- 8. Infrastructures (2–4%)
  - Information Infrastructures
  - Genetic Archives and Stock Centres
  - Assessment of Infrastructures

What Kind of Support is available?

The main nodes of support under the Biotechnology programme are described as concentration, concerted actions and horizontal activities.

Concentrated means

Support by concentrated means will be through shared-cost contracts across all areas of the programme, but primarily aimed at areas 1–4.

Key topics in the programme within areas 1–4 will also be eligible for Integrated projects — task-oriented, large-scale, shared cost projects involving at least 15 (usually more) partners.

Concerted actions

Concerted actions are expected to be the main mode of support for areas 5–8.

Horizontal activities

Support will be for typical horizontal Framework activities such as training fellowships, demonstration projects (including Demonstration project preparatory awards) and small and medium-sized enterprise preparatory awards. Proposals for horizontal activities may be made with reference to any area under the Biotechnology programme.

How Much Funding is available?

The total budget for the Biotechnology programme is 588 Mecu. As well as supporting projects, this funds a contribution to the administration of the programme, and work at the Commission's Joint Research Centre. An indicative breakdown of the budget between Areas is given above.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Biomedicine and Health

Introduction

Following on from BIOMED I, the Biomedicine and Health Programme is designed to contribute to the health of the citizen and population as well as strengthening the scientific basis and competitiveness of the European health industry.

Scope

Full details, in the form of an information pack containing the final work programme and application forms are available from DGXII of the Commission. The programme is divided into seven broad areas:-

- 1. Pharmaceuticals, including
  - pharmacotoxicology;
  - pharmacovigilence; and
  - clinical trials (concentrating on clinical trial methodologies).

- 2. Biomedical engineering, including
  - medical devices for minimally invasive surgery;
  - imaging techniques;
  - biosensors and biomaterials; and
  - modelling of human functions.

- 3. Brain research. This very broad area includes research on:
  - the understanding of the genetic and immunological basis of mental and neurological diseases; and
  - the biological effects of illicit drugs on the structure and function of the brain.

- 4. Diseases of major socio-economic impact, including
  - cancer;
  - AIDS, tuberculosis and other infectious diseases;
  - cardiovascular diseases;
  - chronic diseases and age-related problems;
  - occupational and environmental health; and
  - orphan illnesses.

- 5. Human genome analysis, including
  - exploitation of comparative approaches to mapping and development of appropriate technologies;
  - application of knowledge to the improvement of human health, including somatic gene therapy; and
  - sharing and harmonisation of the databanks on genetic diseases comprising Community participation in the management of the human genome.

- 6. Public health research, including
  - primary care, evaluation of health needs, performance measurement of health policy initiatives and the evaluation of health technologies;
  - impact of the internal market on the supply of health care across internal frontiers;
  - balance between health systems financed by the private and public sectors; and
  - the definition of a European approach for the introduction of new technologies in health systems.

- 7. Biomedical ethics, including
  - the development of general standards for the respect of human dignity and the protection of the individual in the context of biomedical research and its application.

- 8. Horizontal activities.

What kind of support is available?

The programme will be implemented through shared cost actions, concerted actions, specific measures, demonstration activities and accompanying measures including seminars, workshops, studies, training and fellowships, the exploitation of results and the dissemination of information. Further support, including exploratory awards, will be available to small and medium sized enterprises to encourage and facilitate their participation in the programme.

How much funding is available?

The total budget for the Biomedicine and Health Programme is 360 Mecu.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Agriculture and Fisheries (FAIR)

FIRST ACTIVITY

Introduction

The Agriculture and Fisheries programme (FAIR) follows on from the AIR (Agriculture and agro-industries, including Fisheries) programme in FP3, covering all aspects of agriculture (including horticulture) and fisheries (including aquaculture), forestry, all aspects of the processing, utilisation and safety of agricultural, forestry and fisheries products, both as food and in non-food industrial applications, and issues concerned with rural and coastal development.

Potential applicants should obtain and carefully read the information pack available from the Commission, and talk to Commission staff to be sure they understand what is being sought. There is particular concern that this programme has been dominated by institutes and academia. Try to include industry, especially small and medium sized enterprises (SMEs). A concerted action (providing marginal costs for coordinating existing nationally-funded work) can be a good spring-board for later shared-cost applications. Let national contact points know about your application: we are often asked for information and advice by the Commission.

The main aims of the Agriculture and Fisheries programme are:

- to contribute to a competitive, efficient and sustainable production and agro-industrial sector; the major challenge is to improve the match between the production and utilisation of biological materials;
- to support the development, assessment and implementation of Community policies, notably CAP, CFP and rural development as well as the environment and the internal market; and
- to contribute to improvements in quality of life, notably with respect to environment nutrition and rural social development.

Scope

An information pack on the programme is available from the Commission on request by faxing 00 32 2 296 4322. Full details of the programme will be found in the information pack. The programme is divided into six broad themes:

- A : integrated production and processing chains, including
  - creating new opportunities for using biological raw materials, in particular in the production and use of cereal, oil and leguminous crops, forestry/wood and biomass.
- B : scaling-up and processing methodologies, including
  - transferring good technical ideas from laboratory to production scale, including on-farm technologies; and
  - tackling fundamental physical, chemical, biological and engineering problems associated with scale changes.
- C : generic science and advanced technologies for nutritious foods, including
  - improvement of the technology underlying conversion of raw materials to safe, nutritious and attractive food products (including storage and transport).
- D : agriculture, forestry and rural development, including
  - the development of economically, ecologically and socially sustainable farming and forestry systems, concentrating on product diversity and quality, novel technologies and preservation of resources.
- E : fisheries and aquaculture, including
  - providing a firm foundation for the sustainable exploitation of fisheries resources; and
  - developing of aquaculture to ensure the supply of existing and new products to meet dietary needs.
- F : concertation, including
  - the encouragement of cooperation between existing national programmes, especially in primary production, sustainability, rural development and food production and processing.

What kind of support is available?

The Programme is based on both shared-cost and concerted action funding (see 'Methods of Funding' section). For SMEs the programme establishes a system of exploratory awards and co-operative research funding similar to that employed under the Industrial and Materials Technologies programme. This has been open to continuous calls since 15 December 1994. The Ministry of Agriculture, Fisheries and Food has a support programme in place; please contact Mr P Desmond-Thomas (see Annex A (p. 35)).

How much funding is available?

A total of 660 Mecu (about £440M) is available over the four years. 77 Mecu of the overall total will be spent on direct action at JRC. The remainder will be available for research and demonstration projects; a slightly larger proportion will be available in the second two years than the first.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Non-Nuclear Energy (JOULE-THERMIE)

Introduction

The objectives of this programme are the reduction of emissions and improved security of supply through improved conversion and efficient use of energy, and the introduction of renewable energies into Europe's energy systems. The programme is divided into two parts: Research & Development (R&D) and Demonstration (including dissemination and exploitation) and constitutes the continuation of the previous JOULE and THERMIE programmes.

Scope

JOULE (Research and Development)

- Support to Energy Research and Technological Development (RTD) Strategy

- Rational use of Energy:
  - Buildings;
  - Industry;
  - Fuel Cells;
  - Energy Efficient and Low-polluting Vehicles, including Advanced Batteries.

- Renewable Energies:
  - Integration of Renewable Energies;
  - Solar Photovoltaic Electricity;
  - Renewable Energies in the Built Environment;
  - Wind Energy;
  - Biomass;
  - Geothermal Energy;
  - Energy Storage and Further Renewable Energy Options.

- Fossil Fuels:
  - Clean Solid Fuel Technologies;
  - Generic Combustion;
  - Hydrocarbons and New Fuels for Transport;
  - Exploration and Production of Hydrocarbons.

- Dissemination of RTD Results.

THERMIE (Demonstration)

- Support to Energy RTD Strategy.

- Rational Use of Energy:
  - Buildings;
  - Industry;
  - Energy industry, electricity and heat;
  - Transport and urban infrastructure;
  - Fuel cells.

- Renewable Energies:
  - Integration of renewable energies;
  - Solar energy;
  - Wind energy;
  - Energy from biomass and waste;
  - Geothermal energy;
  - Small-scale hydroelectric power.

- Fossil Fuels:
  - Solid fuels;
  - Hydrocarbons.

- Supporting Actions:
  - Energy demonstration strategy;
  - Dissemination of energy technologies;
  - Preparatory, accompanying and support measures;
  - Technology stimulation for SMEs.

What kind of support is available?

Shared cost, concerted action funding and special measures for activities such as standardisation are available.

How much funding is available?

The total budget for the four year programme is 1002 Mecu (£783 million).

Advice

If you are unfamiliar with EC applications, you are advised to talk to the UK contacts listed in Annex A. They can give you general advice and put you in contact with experts in the various fields covered by the programme for more specific help and advice. The UK contacts would also be happy to add your name to a mailing list to receive further information when it becomes available.

There are other programmes which may be of relevance to those engaged in non nuclear energy R&D, in particular the Transport, Environment and Industrial and Materials Technologies programmes. Details of these and contact names are given elsewhere in this guide.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Nuclear Fission Safety and Safeguards

FIRST ACTIVITY

Introduction

The programme aims to improve the Community's knowledge base on nuclear safety by stimulating collaboration between Member States. The intention is to develop a consensus approach and contribute to public acceptance of nuclear power in the Community.

The programme covers five areas. The three main areas, B,C and D are: reactor safety; radioactive waste management and disposal and decommissioning; and radiological impact on man and the environment. In addition, there are two smaller areas, A and E, covering the exploration of innovative approaches to reactor safety and fuel cycle management, and evaluation of the consequences of nuclear accidents (under the title "mastering events of the past"). However, the remaining call for submissions will not include area A.

Scope

An information pack giving full details of the programme can be obtained from the European Commission.

The main emphasis of the four remaining areas is as follows.

- B : Reactor safety
  - studies of reactor based severe accident scenarios, aimed at improving a reactor's primary system and containment integrity;
  - interactions between molten fuel and coolant, concrete and reactor pressure vessels; hydrogen generation and combustion;
  - generic studies of core retention devices (core catchers);
  - modelling of the release of fission products inside reactor pressure vessels;
  - studies of human factors and probabilistic techniques of safety analysis;
  - ageing of plant components; control and instrumentation including software reliability;
  - improved procedures for managing accidents.
- C : Radioactive waste management and disposal, and decommissioning
  - investigation of the technical feasibility of deep geological disposal, including performance of engineered and natural barriers;
  - development of tools to predict the long term safety performance of disposal systems;
  - design and management of disposal sites, repositories and waste packaging;
  - studies of gas generation and transport, radionuclide migration and natural analogues;
  - testing of decommissioning strategies and collection of data on costs, wastes arising from decommissioning, and occupational exposure.
- D : Radiological impact on man and the environment
  - biological effects of radiation, including damage to DNA and predisposition to cancer, and effects on the brain of the foetus;
  - epidemiology and treatment of exposed individuals;
  - quantitative study of the way radionuclides circulate and accumulate in ecosystems;
  - long term consequences of accidental contamination in semi-natural environments;
  - monitoring, dosimetry, and off-site emergency management;
  - risk perception, communication and assessment;
  - reduction of exposures through optimisation of radiological protection, environmental restoration and improvements in diagnostic radiology.
- E : Mastering events of the past
  - post-Chernobyl studies of contamination of ecosystems, site restoration, radioactive waste management, health consequences and dose measurements, and off-site emergency management.

What kind of support is available?

Two types of funding will be available for the programme — shared cost and concerted action funding. Details can be found in the information pack.

How much funding is available?

The total Nuclear Safety and Safeguards budget is 441 Mecu, of which 270 Mecu has been allocated to the Joint Research Centre for activities in this programme. Of the remaining 171 Mecu approximately one third is available for the remaining submission.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Transport

Introduction

Transport has so far figured in the Framework programmes in only a small way. But the central importance to the Community of installing efficient and cost-effective transport networks for goods and passengers under the best possible environmental, social and energy consumption conditions has now been recognised. Launching a separate programme in this area is the consequence of this recognition.

The demand for transport has risen spectacularly (70% since 1970) and this trend is continuing. The growth has resulted in increased congestion and inefficiency. The consequent costs to the European economy, including the costs of the safety problems inherent in transport operations are very high. Transport is the second largest consumer of non-renewable energy and unlike that of industrial and domestic users, its level of consumption is increasing.

The main aims of the Transport programme are:

- to improve the efficiency of the individual modes of transport;
- to speed up the integration of European transport networks; and
- to support Community transport initiatives at both national and European levels.

Scope

An information pack on the programme is available from the Commission. Full details of the programme will be found in the information pack. The programme is divided into two broad themes:

- A : strategic research for a trans-European multi-modal transport system, including
  - understanding mobility and developing intermodality;
  - economics, organisation and interoperability of the transport system; and
  - integration of new technologies and policy assessment.
- B : specific research concerning the optimisation of each mode, including
  - rail transport, integrated transport chains, air transport, urban transport, maritime and inland waterway transport; road transport; and
  - links with Telematics applications, Industrial and Materials Technologies, and Non-Nuclear Energy programmes.

Additional information documents detailing task specifications are available from the Commission for Theme A and for each of the modes in Theme B. The Additional Information Documents also contain a listing of which tasks will be launched in which call for proposals. The documents are updated and available for issue immediately following publication of each call.

What kind of support is available?

The majority of the work is likely to take the form of shared cost actions with an EU contribution of up to 50% of the allowable project costs. The programme also includes concerted actions (no funding for research) and some 100% funded research studies. Exploratory awards (up to 75% of total cost not exceeding 45,000 ecu) are available for SMEs to prepare bids for shared cost RTD actions.

How much funding is available?

The total budget for the Transport programme is 240 Mecu. The indicative annual breakdown of commitments is 1995:37 Mecu; 1996:115 Mecu; 1997:72 Mecu; 1998:16 Mecu.

Theme A has been allocated 20% of the total, with the remainder going to Theme B (rail–16%; integrated–7%; aviation–16%; urban–11%; maritime–19%; roads–11%).

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Targeted Socio-Economic Research (TSER)

Introduction

This programme, the first of its kind, will build on existing efforts sponsored by the European Union to monitor and evaluate developments relating to developments in science and technology and the potential they offer for laying the foundation for sustainable development of Europe's economies, enabling them to withstand international competition and create jobs. To this end it will provide a common knowledge base for decision makers in science and technology policy at regional, national and European level, for all those responsible for other areas of activity in which science and technology play a role, with the ultimate objective of encouraging greater consistency and closer coordination of research and technological development efforts and policies in Europe.

Closely related to these ends are activities on education and training, and the programme will also undertake research activities that support the efforts made by the Member states to strengthen the links between research, education and training in order to promote the development in Europe of a society in which lifelong training and education permanently play a central role. Complementing these efforts will be projects that look at possible barriers to the development of Europe's economies presented by threats to its social cohesion such as poverty and social exclusion.

Given the limited sum of money available and the expected level of interest under this theme, applicants are reminded that the quality will need to be very high. The strong policy oriented nature of the work is stressed as is the need for the proposal to demonstrate the management skills of its coordinator.

The main aims of the Targeted Socio-Economic Research programme are:

- to evaluate science and technology policy options;
- to conduct research on education and training; and
- to conduct research on social integration and social exclusion in Europe.

Scope

An information pack on the programme is available from the Commission. Full details of the programme will be found in the information pack. The programme is divided into three broad themes:-

- A : evaluation of science and technology policy options, including
  - analysis of the state of research and technological development in Europe, generating information which will allow the strengths and weaknesses of Europe to be judged;
  - evaluation of the inter-relationship between societal changes and scientific and technological developments over the short and medium term; and
  - work on methods and evaluation mechanisms for science and technology.
- B : research on education and training, including
  - impact of regional, national, and European level action, effects of new training schemes, continuous education and training, and the impact of greater mobility and increased trade;
  - methods, tools and methodologies for innovation and quality in formal and informal education and training; and
  - education, training and economic development.
- C : research into social integration and social exclusion in Europe, including
  - forms and process of social exclusion and integration;
  - causes of social exclusion, particularly unemployment;
  - migrants from the less developed countries outside Europe and from Central and Eastern Europe; and
  - evaluation of the impact of social integration policies.

What kind of support is available?

Funding will cover both shared cost research and concerted actions.

How much funding is available?

The total budget for Targeted Socio-Economic Research is 112 Mecu. The breakdown between the areas is as follows:

A. Evaluation of Policy Options 48%
B. Education and Training 23.5%
C. Social Integration and Exclusion 28.5%

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Co-operation with Third Countries and International Organisations

Introduction

The Second Activity covers international cooperation. It complements the research activities of the rest of the Framework Programme and the member states by encouraging scientific collaborations with individuals and organisations outside the European Union. It covers the industrialised countries, Central European (CE) countries, the New Independent States (NIS) of the former Soviet Union and developing countries.

The main objectives of the International Cooperation activity are:

- to reinforce Community capacities in the fields of science and technology, by exchanging information and developing joint activities with countries outside the Union;
- to support the implementation of Community policies with respect to third countries, including the development of research and technological development capabilities in less advanced countries; and
- to contribute to the solution of regional and global problems, such as those concerning social, economic, ecological, resource or health issues.

Scope

- A1 : collaboration with other European fora for scientific and technological cooperation;
- A2 : cooperation with the countries of Central and Eastern Europe and with the NIS;
- B : cooperation with non-European industrialised third countries;
- C : scientific and technological cooperation with developing countries.

What kind of support is available?

Funding for Areas A1 and B takes the form of administrative support by the Commission. This includes the negotiation of agreements, holding meetings, and exchanging information to increase co-operation and collaboration between Central and Western Europe, and co-operation with non-European industrialised countries. With the exception of a limited number of fellowships to Japan and Korea (Area B), no research grants are available in these areas.

Funding for Areas A2 and C provide support for joint research projects to increase cooperation and collaboration between Member States and the CE countries, NIS and developing countries.

Details of the scientific disciplines and geographical areas for which such funds will be available are given in the information packs available from the Commission.

Important note

The funding allocated to these areas also provides for funds to be set aside to cover the costs of these countries participating in other activities.

INTAS (International Association for the Promotion of Cooperation with Scientists from the Independent States of the Former Soviet Union) is an independent organisation to promote scientific co-operation between scientists from Western Europe and the New independent states of the former Soviet Union. It provides funding to joint research projects (associating a minimum of two laboratories from Western Europe and one from the NIS states), and supports networks between scientists and institutions from the NIS and Western Europe. INTAS operates in addition to any schemes run by the Commission for the NIS under Area A2.

How much funding is available?

The total budget for the International Cooperation Activity is 506 Mecu. The money will be divided between four areas approximately as follows:

- Area A1 : 9%
- Area A2 : 43%
- Area B : 5%
- Area C : 43%

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Dissemination and Optimisation of Results

Introduction

The separation of the dissemination and optimisation programme into a distinct activity is a sign of the realisation that the business of getting research results widely applied is a central concern of FP4. In this it differs from FP3, where efforts for the dissemination and optimisation of research results were undertaken specifically within the VALUE programme. Similar efforts, directed at the promotion of energy technologies were undertaken specifically within the THERMIE programme. Initiatives to promote innovation and technology transfer were undertaken within the SPRINT programme. However, SPRINT was not a part of the EC R&D Framework Programme. In addition, FP4 introduces a new principle that each specific programme should take responsibility for the dissemination and optimisation of the results generated within it. The work of the dissemination and optimisation programme will then be to complement the efforts of the specific programmes.

The main objectives of the Dissemination and Optimisation Activity are:

- to ensure wide dissemination of research results;
- to optimise the exploitation of research and development results into innovations;
- to promote technology transfer particularly to small and medium sized enterprises; and
- to support initiatives at a national or regional level in order to give them a trans-European dimension.

Scope

An information pack on the programme should be available from the Commission from January 1995. Full details of the programme will be found in the information pack. The programme is divided into three broad themes:

- A : dissemination and optimisation of the results of Community research, including
  - network of Relay Centres;
  - The Community Research and Development Information Service (CORDIS) and Publications Dissemination Service;
  - protection of results;
  - optimisation of research results; and
  - optimisation of research and the needs of society.
- B : dissemination of technology to enterprises, including
  - trans-national networks providing support for the transfer and dissemination of technology;
  - creating an environment favouring the absorption of technologies by industry; and
  - exchanges of information and experiences with regard to policies for the dissemination of technologies.
- C : financial environment for the dissemination of technology, including
  - improving communications between financiers and the promoters of technological projects;
  - pilot actions for the stimulation of transfer and use of technologies; and
  - technical and managerial assistance to public and private financial intermediaries.

What kind of support is available?

Contracts awarded will be shared cost contracts where the Commission's contribution will cover up to 50% of direct costs or 100% of marginal costs.

How much funding is available?

The total budget for the Dissemination and Optimisation Activity is 351 Mecu. This will be divided approximately as follows:

- theme A : 48.5%
- theme B : 46.5%
- theme C : 5%

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Stimulation of the Training and Mobility of Researchers (TMR)

The Training and Mobility of Researchers programme (Activity 4) builds on the Human Capital and Mobility Programme of FP3. Its aim is to promote, through the stimulation of the training and mobility of researchers, an increase in the quantity and quality of human resources in S&T.

Introduction

The programme invites basic research proposals in areas of the exact, natural, economic and management sciences and the social and human sciences that have not been targeted in other activities of FP4.

The main objectives of the Training and Mobility of Researchers Activity are:

- to allow European researchers to travel throughout the Community, encouraging mobility between disciplines and universities, research institutes and industry;
- to help European researchers to use existing large-scale facilities;
- to improve the scientific and technological cohesion of the Community and increase the general level of scientific excellence;
- to promote, through networks, the training of young researches and transnational co-operation of scientists on research projects; and
- to encourage innovation and creativity by allowing scientists to generate their own topics for proposals.

Scope

An information pack on the programme is available from the Commission. Full details of the programme will be found in the information pack. The programme is divided into four broad themes:

- A : research networks.

  This will provide support for the costs of training a young researcher, as well as a contribution towards networking and direct/indirect research costs. Participation from universities, industry or research institutes will be encouraged, and proposals involving five or more centres from at least three Community countries (fewer if they are considered to form the core of a future larger network) will be favoured.

- B : research fellowships.

  This will provide grants to cover the subsistence and mobility costs of researchers and a proportion of associated direct and indirect research costs of the host institute. Emphasis will be placed at postdoctoral level, although postgraduates and experienced researchers will also be included. Special attention will be given to the training of researchers from less favoured regions and from small and medium sized enterprises. Return grants will be made available for researchers from less favoured regions planning to return to less favoured regions in their home country after training elsewhere.

- C : access to large scale facilities.

  This will reimburse costs relating to the use of facilities by visiting researchers, and will fund research into improvements in facilities that will improve access to visiting researchers. It will also fund studies, seminars and workshops.

- D : accompanying measures.

  These include Euroconferences, summer schools and practical training courses.

How much funding is available?

The total budget for the Training and Mobility of Researchers programme is 792 Mecu. The allocation between the four themes is:

- theme A : 45%
- theme B : 35%
- theme C : 15%
- theme D : 5%

The aim is to fund 5000 fellowships, 250 networks, and 800 user groups with access to 50 large-scale facilities.

Contact points and closing dates of the calls for proposals can be found in Annexes A (p. 35) and C (p. 41) respectively

Other key collaborative mechanisms : EUREKA and COST

Several European initiatives for technological collaboration have arisen from the recognition of the needs to spread development costs and risks, and from a general desire to improve European capability and competitiveness in the field concerned. A brief summary of the two most important initiatives is given below; more detailed information is available from the contact points listed.

EUREKA

EUREKA is an initiative to encourage collaboration between organisations across Europe in the development of new and innovative advanced technology products, processes and services. With its strong market orientation, EUREKA complements the EU's programmes of strategic research.

There are currently 25 EUREKA members, including the 15 EU Member States, Norway, Iceland, Hungary, Turkey, Slovenia, Switzerland, Poland, the Czech Republic and the Russian Federation. The European Commission is also a member in its own right.

EUREKA is not in itself a funding mechanism, though public funding may be available to UK participants in some instances, particularly for SMEs. Rather, it offers a wide range of help to those interested in European R&D, and a framework within which collaborative projects might more easily and more effectively proceed.

Projects can be in any technology area, and there are no restrictions on project size, timing or length — all such matters are for the participants themselves to decide. Project partners are in full control, which means that the EUREKA mechanisms are not bureaucratic.

Contact

UK EUREKA Unit
Department of Trade and Industry,
3rd Floor, 151 Buckingham Palace Road,
LONDON SW1W 9SS

Tel : 0171–215 1618 Fax : 0171–215 1700

COST

Co-operation on Science and Technology (COST) is an independent mechanism which enables participants to undertake research in areas of common interest, and to exchange the results among themselves. Participants fund their own research but have access to all the project results. It is the mutual benefit the partners gain from co-operation that justifies their participation in a COST project.

Membership comprises the 15 EU member states and Croatia, the Czech Republic, Hungary, Iceland, Norway Poland, Slovakia, Slovenia, Switzerland and Turkey. Administration of the programme is carried out by the European Commission, but research costs are the responsibility of participating research bodies.

COST has four fundamental principles:

1. All COST states, and the European Community, can propose research projects.
2. Participation in these projects is voluntary and "a la carte", so only those countries which are interested take part.
3. The projects are funded nationally.
4. Co-operation takes the form of "concerted action" ie the co-ordination of national research projects. The work is organised by Management Committees, established by the participants.

These are 16 areas currently covered by COST:

Informatics; Telecommunications; Transport; Oceanography; Materials; Environment; Meteorology; Agriculture and biotechnology; Food technology; Social sciences; Medical research; Civil engineering; Chemistry; Forestry and forestry products; Physics; and, Fluid dynamics.

Once a concerted action has been adopted as a COST Action, the following activities can be funded:

- Travel costs for experts and national representatives;
- Allowances for seconded national experts;
- Organisation of seminars/workshops;
- Translation/interpretation; and
- Publication of documents.

At December 1995 there were 125 projects (known as 'Actions'), with the UK participating in 115 — more than any other COST member state.

Contact

David Snell, Office of Science and Technology,
Albany House, Petty France, LONDON, SW1H 9ST

Tel : 0171–271 2057, Fax : 0171–271 2016
E-mail : international.ost.ah@gtnet.gov.uk

Sources of help

There are many sources of help available to provide you with information about FP4 and details of the specific programmes. Several of these can also give advice and assistance on proposal preparation including finding partners, Consortium Agreements and IPR issues.

If you are new to FP4, the EC R&D team (listed below) will be able to provide you with general information about FP4 and to steer you towards further help if appropriate. If you need more detailed information about a specific programme you should contact the UK programme contacts, the European Commission or, if you are an SME, the CRAFT Thematic Focal Points.

The list below is divided into four sections. The first provides contacts specific to FP4, the second contains more general contacts, the third describes the electronic databases available, and the fourth lists some of the relevant publications that are available.

Sources of help specific to FP4

The EC R&D team within OST

This team, which is part of the Office of Science and Technology in DTI, provides a contact point for general enquiries about FP4 and can signpost enquirers to other sources of help as appropriate.
Tel: 0171–215 1611/13, Fax: 0171–215 4127.

UK Programme Contacts

For each specific programme, there are several contact points for help, many of which are in UK Government departments. They can provide detailed advice on the science, objectives and idiosyncrasies of their programme. However, they cannot supply information packs — these should be obtained from the Commission. Contacts for each programme can be found in Annex A (p. 35).

UK Innovation Relay Centres

The Relay Centres are part of a Europe-wide network, set up by the Commission under the Third Activity of FP4. Their principal task is to ensure that the results arising (primarily) from EC R&D projects are disseminated and exploited, for example by brokering partnerships between organisations that have developed new results and organisations that could exploit them. However, they are also part-funded to promote the Community's R&D programmes, and can help organisations to prepare proposals for submission to FP4 by providing advice on exploitation plans and Consortium Agreements. They can also provide help with finding partners through having access to the European Relay Centre network, and using the EC CORDIS database — see the entry below on CORDIS. There are 7 Relay Centres in the UK — their details appear in Annex B (p. 40).

CRAFT Focal Points (for SME measures)

Within most of the specific programmes under FP4, special measures have been set up to help SMEs to participate — see the section on Technology Stimulation Measures (p. 11) for more details of this network. A list of CRAFT Focal Points appears in Annex B (p. 40).

European Commission

The Commission has a team of people for each specific programme who can provide help. They are often willing to look at summaries of proposals in advance of the closing date to see if the proposed idea falls within the remit of the programme. We recommend that people contact the UK programme contact first; they may then recommend contacting the Commission if appropriate. Commission contacts are listed in Annex A (p. 35).

Commission Proposers' Days

Commission and national research organisations organise proposers' days where specific research programmes are presented. These are normally held every 3–4 months and are a good opportunity to meet partners. UK programme contacts can provide you with more details.

General Sources of Help

Euro-Info Centres

The Euro-Info Centre network was set up by the Commission to provide advice on many aspects of Europe. As well as being able to advise on the general aspects of FP4, the Centres in the UK have access to CORDIS (see below). They also host partner search schemes such as BC-Net (see below) and Business Co-operation Centre (like BC-Net but non-confidential), and international partner search meetings such as INTERPRISE and EUROPARTENARIAT. Contact your local Euro-Info Centre for more details. A list of the Euro-Info Centres is given in Annex B (p. 40).

UKRHEEO

The UK Research and Higher Education European Office, situated in Brussels, exists to promote UK participation in EC research and higher education programmes. It is a subscription service providing universities with a range of services including regular bulletins (paper and email), a telephone enquiry service and provision of a meeting room close to the Commission buildings. Their address is 83 Rue de la Loi, BP10, 1040 Brussels. Tel: 00 32 2 230 5275, fax: 00 32 2 230 4803.

Business Links

The Business Link network is increasingly delivering DTI services to SMEs at a local level. In particular, the Innovation and Technology Councillors (ITCs) can provide advice on FP4. For details of the Business Link nearest to you, call the Business Link helpline, freephone 0800–500200.

Chambers of Commerce and Trade Associations

When looking for partners, Chambers of Commerce and Trade Associations may be able to help through their contacts with equivalent organisations in other European countries.

Government Offices

The regional offices have an extensive knowledge of industrial and academic players in their regions. They can often provide details of previous local participants in EC R&D.

Electronic Databases

CORDIS

The Community's Research and Development Information Service (CORDIS) provides a central source of information in English on all Community-funded research, including FP4. It comprises 10 databases which cover the following issues:

- Programmes — information on all Community-funded R&D programmes;
- Projects — basic details of currently funded projects;
- Publications — summary information on publications and scientific documents;
- Comdocuments — information on Commission documents related to EC R&D;
- Acronyms — compact dictionary of acronyms and abbreviations that arise in EC R&D;
- News — latest news on EC R&D including current calls for proposals, events, and publications;
- Results — details of results arising from Community and other R&D activities, as well as information on research projects requiring further development;
- Partners — a list of organisations seeking partners which includes basic details of each organisation, the type of research proposed and the type of partner sought. This database enables users to identify suitable partners either for participation in EC R&D or for the commercial exploitation of results. It currently holds over 22000 entries;
- Expressions of Interest — similar to the Partners database except that it only covers the Information Technologies and Telematics programmes;
- Contacts — details of contact points on EC R&D issues at the national and European level.

Most of the databases are updated every two weeks, with the News database updated every day. Hard copy extracts from the News database appear every two weeks in the publication CORDIS Focus which is available free from the Commission. To subscribe, fax your name and address to the RTD-Help Desk on 00 352 430 132 084.

The information in all the CORDIS databases can be accessed from CD-ROMs, or on-line through networks such as PSDN, JANET, INTERNET and the World Wide Web (http://www.cordis.lu). In either case you will need to register with the European Commission Host Organisation at ECHO Help Desk, BP2373, L–1023 Luxembourg; Tel: 00 352 349 81240; Fax: 00352 349 81248; Freephone 0800–899 256; E-mail helpdesk@cordis.lu. The on-line access is free, while the CDs are produced every three months and cost 100 ecu each.

Alternatively, several of the organisations in the Sources of Help lists, including the Relay Centres and the Euro-Info Centres, have access to CORDIS and can provide assistance with using the databases.

To be entered onto the Partners databases, organisations should contact the CORDIS Information Collection Unit on tel: 00 322 280 1744, fax: 00 322 280 1749. Entry forms are also available from the RTD-Partners team currently hosted by Cartermill International Ltd. tel: 01334–477660, fax: 01334–477180. For the Expressions of Interest database, the entry forms are available from the DTI Esprit Unit (tel: 0171–215 1378, fax: 0171–215 1966) or the Esprit help desk (tel: 00 322 296 8596, fax: 00 322 296 8388, email: infodesk@dg13.cec.be).

For more details contact the ECHO Help Desk (number above) or the Relay Centres.

ARCADE

This is a real-time, interactive system which acts as a two-way communication tool between the Commission and organisations interested in the Industrial and Material Technologies (IMT) programme. It allows users to create and send information, including completed proposals, to the Commission, as well as obtaining information such as the IMT information pack, details of proposal submission deadlines and lists of the CRAFT Focal Points. Pre-screening of proposals is also available, as are partner search facilities for the SME Exploratory awards.

Access to ARCADE is free, and can made through standard telecommunication networks such as Prestel. For further information tel: 00 322 295 0745, or fax: 00 322 296 0626.

BC-Net

A computerised network of 600 business advisors who try to find suitable partners for interested companies (not just for R&D purposes). To maintain confidentiality, the names of these companies are not revealed to prospective partners. For more information contact the Euro-Info Centres (see Annex B (p. 40)).

Useful publications

CORDIS Focus
(published every two weeks) Extracts from the CORDIS News database, including details of calls for proposals and events. Available free from RTD Help Desk, Batiment Jean Monnet, L–2920 Luxembourg; tel: 00 352 430 133 161, fax: 00 352 430 132 084.

Official Journal of the European Communities
(published every day) Community information and notices, including details of all Calls for Proposals and Community Legislation. Available at 6–12 ecu from HMSO Publications, 51 Nine Elms Lane, London SW8 5DR; tel: 0171–873 9090, fax: 0171–873 8463.

Fast-Track Guide to Successful Proposals
Advice on how to write a successful proposal. Written specifically for the Information Technologies programme, but the advice given is appropriate for all the specific programmes. Available free from the DTI ESPRIT Unit, 151 Buckingham Palace Road, London SW1W 9SS; tel: 0171–215 1378, fax: 0171–215 1966.

EC-funded Research and Technological Development
(published 1994) A straightforward guide to the evaluation process and contract negotiation. Available at 11.50 ecu from Office of Official Publications of the European Communities, 2 rue Mercier, L–2985 Luxembourg; tel: 00 352 499 281, fax: 00 352 488 573.

ANNEX A
Programme Specific Contact Points

INFORMATION PACKS AND APPLICATION FORMS

UK contacts cannot generally supply copies of the information packages. Stocks are held by the Commission and requests should therefore be made direct to the Commission at the address given in the published Call for Proposals. It may be possible, however, to obtain a copy of the information pack in advance of the Call from the contact(s) for the European Commission listed in the table below.

For basic information on the scope of each specific programme see the individual programme entries (p. 13–29). For general sources of help see the Sources of Help section, page 31.

UK AND COMMISSION PROGRAMME CONTACTS

Footnote numbers refer to postal addresses given on page 39.

TELEMATIC APPLICATIONS				
General and Theme A		Alun German, DTI [13]	0171–215 1226	(Fax : 0171–215 1370)
Theme A	(Administration)	Vijay Sawhney, CCTA [2]	01603–704689	(Fax : 01603–704817)
	(Transport)	Matthew White, DoT [16]	0171–271 5612	(Fax : 0171–271 5601)
		Paul Ayscough, DTI [13]	0171–215 1295	(Fax : 0171–215 1370)
Theme B	(Research)	Geoff Ireland, DTI [13]	0171–215 1332	(Fax : 0171–215 1966)
	(Education and training)	Brian Jones, DTI [13]	0171–215 1224	(Fax : 0171–215 1370)
	(Training technology)	Keith Lindsay, D/EE [7]	0114–259 4310	(Fax : 0114–259 3459)
	(Education technology)	David Noble, D/EE [6]	0171–925 6301	(Fax : 0171–925 6988)
	(Libraries)	Niraj Saraf, DNH [12]	0171–211 6137	(Fax : 0171–211 6130)
		Ros Cotton, LIC [20]	0171–411 0056	(Fax : 0171–411 0057)
		Paul Ayscough, DTI [13]	0171–215 1295	(Fax : 0171–215 1370)
Theme C	(Urban & Rural areas)			
	Rural Devt. in England	Martyn Mance, DoE [8]	0171–276 3700	(Fax : 0171–276 3665)
	Urban policy in England	Gillian Reeves, DoE [8]	0171–276 4661	(Fax : 0171–276 6722)
	Technological aspects	David Allen, DTI [13]	0171–215 1809	(Fax : 0171–931 7194)
	(Health care)	Brian Jones, DTI [13]	0171–215 1224	(Fax : 0171–215 1370)
		David Preston, DoH [10]	0113–254 6003	(Fax : 0113–254 6261)
	(Disabled & elderly people)	Sue Wilkin MDA [21]	0171–972 8171	(Fax : 0171–972 8106)
		Brian Jones, DTI [13]	0171–215 1224	(Fax : 0171–215 1370)
	(Environment)	Arwyn Davies, DoE [8]	0171–276 8365	(Fax : 0171–276 8355)
		Peter Cottrell, DTI [13]	0171–215 2823	(Fax : 0171–215 2824)
Theme D	(Telematics engineering)	Bob Wiggins, DTI [13]	0171–215 1284	(Fax : 0171–215 1966)
	(Language engineering)	Peter Lee, DTI [13]	0171–215 1390	(Fax : 0171–215 1966)
	(Information engineering)	Paul Ayscough, DTI [13]	0171–215 1295	(Fax : 0171–215 1370)
	EUROPEAN COMMISSION			
Theme A	(Administration)	B O'Shea, DGXIII-C2 [33]	00 322 296 3551/2	(Fax : 00 322 296 4260)
	(Transport)	Fotis Karamitos, DGXIII-C6 [33]	00 322 296 3461	(Fax : 00 322 296 2391)
Theme B	(Research)	Jean-Pierre Euzen, DGXIII-C3 [33]	00 322 296 3447	(Fax : 00 322 296 2392)
	(Education & Training)	Luis Rosello, DGXIII [33]	00 322 296 3406	(Fax : 00 322 296 2392)
	(Libraries)	Ariane Iljon, DGXIII-E3 [33]	00 352 4310 32923	(Fax : 00 352 4301 33530)
Theme C	(Urban & rural areas)	Carl Strack, DGXIII [33]	00 322 295 7070	(Fax : 00 322 296 4260)
	(Health Care)	Jean-Claude Healy, DGXIII [33]	00 322 296 3506	(Fax : 00 322 296 0181)

Footnote numbers refer to postal addresses given on page 39.

TELEMATIC APPLICATIONS (continued)				
	(Disabled & elderly people)	Egidio Ballabio, [33]	00 322 299 0232	(Fax : 00 322 296 0248)
	(Environment)	Wolfgang Boch, DGXIII-C6 [33]	00 322 296 3591	(Fax : 00 322 296 2391)
Theme D	(Telematics engineering)	Vincent Obozinski, DGXIII [33]	00 322 295 3150	(Fax : 00 322 296 8398)
	(Language engineering)	Roberto Cencione, DGXIII [35]	00 352 4301 32859	(Fax : 00 352 4301 34999)
	(Information engineering)	Bernard Smith, DGXIII [35]	00 352 4301 34195	(Fax : 00 352 4301 32847)
ADVANCED COMMUNICATIONS TECHNOLOGIES & SERVICES (ACTS)				
	General	Patrick McDonald, DTI [13]	0171 –15 1795	(Fax : 0171–931 7194) patrick.mcdonald@tpdv.dti.gov.uk
		Graham Worsley, DTI [13]	0171–215 1820	(Fax : 0171–931 7194) graham worsley@tpdv.dti.gov.uk
	National Host Enquiries (Telecommunications Consultant)	Graham Oliver [31]	01473–736718	(Fax : 01473–736718)
	EUROPEAN COMMISSION	RACE/ACTS Central Office [33]	00 322 296 3456	(Fax : 00 322 296 2980) ACO@postman.dg13.cec.be
INFORMATION TECHNOLOGIES (IT)				
	General enquiries	Julian Thompson, DTI [13]	0171–215 1378	(Fax : 0171–215 1966) julian.thompson@dtieed.dti.gov.uk
	Academic institutions	Mark Wilkins, EPSRC [29]	01793–444394	(Fax : 01793–444006) mark.wilkins@epsrc.ac.uk
	EUROPEAN COMMISSION	Chrissa Mela, ESPRIT Infodesk [33]	00 322 296 8594	(Fax : 00 322 296 6613) infodesk@dg13.cec.be
INDUSTRIAL & MATERIALS TECHNOLOGIES (IMT/BRITE-EURAM)				
	UK Industrial participants	BRITE-EURAM Helpline, NPL [25]	0181–943 6660	(Fax : 0181–943 2989) behelp@newton.npl.co.uk
	Construction industry	D Hughes, BRE [1]	01923 664455	(Fax : 01923–664795)
	Strategic construction related issues	Mr Trouton, DoE [8]	0171–276 6728	(Fax : 0171–276 3445)
	Aeronautics	Ray Kingcombe, DTI [13]	0171–215 1115	(Fax : 0171 –15 1320)
	Universities	Mike Bowthorpe, EPSRC [29]	01793–444343	(Fax : 01793–444005) M.Bowthorpe@epsrc.ac.uk
	SMEs	CRAFT, Beta Technology Ltd [1]	0114–242 2004	(Fax : 0114–256 0950)
	EUROPEAN COMMISSION	DGXII 33)	00 322 296 0550	(Fax : 00 322 295 8046)
STANDARDS, MEASUREMENTS & TESTING (SMT)				
	UK	Roy Crouch, DTI [13]	0171–215 1404	(Fax : 0171–215 1978)
		Joan Cocksedge/Lee Vousden, DTI [13]	0171–215 1424	
	EUROPEAN COMMISSION	J J Belliardo, DGXII [34]	00 322 295 8333	(Fax : 00 322 295 8072)
ENVIRONMENT AND CLIMATE				
	General enquiries	Arwyn Davies, DoE [9]	0171–276 8365	(Fax : 0171–276 8355)
Theme A		Tony Mayer, NERC [29]	01793–411740	(Fax : 01793–411691)
Theme B				
	(Environmental protection technology)	Environmental helpline, NETCEN [24]	0800–585794	(Fax : 01235–463804)
	(Industrial hazards)	G Lowe, HSE [17]	0114–289 2365	(Fax : 0114–289 2400)
	(Natural risks)	Tony Mayer, NERC [29]	01793–411740	(Fax : 01793–411691)
Theme C		National Space Centre [26]	0171–215 0790	(Fax : 0171–821 5387)
Theme D		Chris Caswill, ESRC [29]	01793–413008	(Fax : 01793–413001)
	EUROPEAN COMMISSION	DGXII–D [34]	00 322 296 3024	

Footnote numbers refer to postal addresses given on page 39.

MARINE SCIENCE & TECHNOLOGY (MAST)

	Christopher West, NERC [29]	01793–411636	(Fax : 01793–411545)
	Deborah Williams, OST [27]	0171–271 2087	(Fax : 0171–271 2016)
	Alison Bowen, DTI [14]	0171–321 0674	(Fax : 0171–930 4323)
	Bill Morgan, DTI [13]	0171–215 1454	(Fax : 0171–215 1461)
EUROPEAN COMMISSION	Jean Boissonnas [33]	00 322 295 6787	(Fax : 00 322 296 3024)

BIOTECHNOLOGY

	Tim Willis, BBSRC [29]	01793–413284	(Fax : 01793–413382) tim.willis@bbsrc.ac.uk
	Jacky Wood, DTI [13]	0171–215 4123	(Fax : 0171–215 1379) jacky.wood@bprb.dti.gov.uk
EUROPEAN COMMISSION	Etienne Magnien [33]	00 322 295 9347	(Fax : 00 322 295 5365) e.magnien@mhsg.cec.be

BIOMEDICINE AND HEALTH

Medical Research Council	International Section [22]	0171–636 5422	(Fax : 0171–436 6179) stephen.brown@headoffice.mrc.ac.uk
EUROPEAN COMMISSION	S Baig, DGXII–E–4 [33]	00 322 296 3437	(Fax : 00 322 295 5365)

AGRICULTURE & FISHERIES (FAIR)

Scientific advice	Miles Parker, MAFF [23]	0171–238 5524	(Fax : 0171–238 6129)
Mailings, Information and policy issues	Laurie Broadbere, MAFF [23]	0171–238 5565	(Fax : 0171–238 6321)
SMEs	Peter Desmond-Thomas, MAFF [23]	0171–238 5567	(Fax : 0171–238 5597)
SOFAD	Lindsay Turl [30]	0131–244 6110	(Fax : 0131–244 6001)
DANI	M McKillen [4]	01232–524604	(Fax : 01232–525002)
BBSRC	Alf Game [29]	01793–413354	(Fax : 01793–413382)
EUROPEAN COMMISSION			
(Agro-industries, Products, food, biotechnology, demonstrations)	Liam Breslin, DGXII [33]	00 322 395 0477	(Fax : 00 322 296 4322)
(Agriculture & Forestry)	Dionysses Dessylas, DGVI	00 322 295 8612	(Fax : 00 322 295 3028)
Fisheries and Aquaculture	Willem Brugge, DGXIV	00 322 295 5137	(Fax : 00 322 295 7862)

NON-NUCLEAR ENERGY (JOULE & THERMIE)

	David Irving, DTI [15]	0171–215 2812	(Fax : 0171–828 7969)
	Mike Brook, DTI [15]	0171–215 2813	(Fax : 0171–828 7969)
EUROPEAN COMMISSION			
(R&D)	Jean-Marie Bemtgen, DG XII [34]	00 322 296 2071	(Fax : 00 322 296 4288)
(Demonstrations)	Chirstine Jenkins, DGXVII [36]	00 322 295 3008	(Fax : 00 322 296 6016)

NUCLEAR FISSION SAFETY & SAFEGUARDS

General Enquiries	Jonathan Cook, DTI [15]	0171–215 0284	(Fax : 0171–215 2841)
Themes A & B	Mark Bassett, HSE [18]	0171–717 6896	(Fax : 0171–717 6882)
Theme C	Robert Jackson, HM Inspectorate of Pollution [19]	0171–276 8138	(Fax : 0171–276 8909)
Theme D and E	Hilary Walker, DoH [11]	0171–972 5122	(Fax : 0171–972 5235)
EUROPEAN COMMISSION	DGXII–F [33]	00 322 295 4045	(Fax : 00 322 296 6256)

Footnote numbers refer to postal addresses given on page 39.

TRANSPORT

	Finella McKenzie,	Department of Transport [16]	0171–271 5632	(Fax : 0171–271 5601)
	Transport themes in other programmes			
	Telematics	Alun German, DTI [13]	0171–215 1226	(Fax : 0171–215 1370)
	Telematics	Matthew White, DoT [16]	0171–271 5612	(Fax : 0171–271 5601)
	Industrial & Material Technology	Alan Hickman, DTI [13]	0171–215 1472	(Fax : 0171–215 1518)
	Non-nuclear energy	David Irving, DTI [15]	0171–215 2812	(Fax : 0171–828 7969)
	EUROPEAN COMMISSION			
	General enquiries	DGVII [32]	00 322 295 4300	(Fax : 00 322 296 8350)
Theme A		J Elias de Freitas	00 322 296 3060	
Theme B	(Rail transport)	E Parent de Curzon	00 322 296 3635	
	(Integrated transport chains)	J de Bock	00 322 296 9089	
	(Air transport)	C North	00 322 296 8336	
	(Urban transport)	A Barbas	00 322 299 3911	
	(Maritime & inland waterway transport)	J Anselmo	00 322 296 8667	
	(Road Transport)	R Bastiaans	00 322 296 4115	

TARGETED SOCIO-ECONOMIC RESEARCH (TSER)

		Paul Rouse, ESRC [29]	01793–413014	(Fax : 01793–413001)
	EUROPEAN COMMISSION			
	Theme A	Georges Papageorgiou [33]	00 322 296 8049	(Fax : 00 322 296 2137)
	Theme B	Miroslav Bures [33]	00 322 295 3657	(Fax : 00 322 296 4299)
	Theme C	DGXII–H3 [33]	00 322 295 9755	(Fax : 00 322 296 4299)

2nd ACTIVITY : COOPERATION WITH THIRD COUNTRIES & INTERNATIONAL ORGANISATIONS

	Areas A1, A2 and B	Stephen Walsgrove, OST [27]	0171–271 2085	(Fax : 0171–271 2016)
Area C	General enquiries,	Guy Mustard, ODA [28]	0171–917 0249	(Fax : 0171–917 0128)
	(Agriculture & environment)	Ian Haines, ODA [28]	0171–917 0094	(Fax : 0171–917 0679)
	(Health)	D N Nabarro, ODA [28]	0171–917 0107	(Fax : 0171–917 0174)
	EUROPEAN COMMISSION			
	General enquiries/info packs			(Fax : 00 322 296 3308)
Area C				
	(Agriculture & environment)	Alain Darthenucq	00 322 295 3698	
	(Natural resources)	Tilak Viegas	00 322 295 8636	
	(Health)	Marc de Bruycker	00 322 296 9172	
	INTAS	P Venet	00 322 549 0123	(Fax : 00 322 549 0155)

3rd ACTIVITY : DISSEMINATION & OPTIMISATION OF RESULTS (INNOVATION)

		Purnima Madhvi, OST [13]	0171–215 1614	(Fax : 0171–215 4127)
	EUROPEAN COMMISSION	Daniel Jansenns [35]	00 352 4301 34407	(Fax : 00 352 4301 34009)

4th ACTIVITY : TRAINING & MOBILITY OF RESEARCHERS (TMR)

	General Enquiries	OST TMR Helpline [27]	0171–271 2112	(Fax : 0171–271 2016)
	Large Scale Facilities	Peter Fletcher, PPARC [29]	01793–442034	(Fax : 01793–442002)
	EUROPEAN COMMISSION	DGXII–G3 [34]	00 322 296 0254	(Fax : 00 322 296 2136)
				(Fax : 00 322 296 2133)

CONTACT ADDRESSES

These are the postal addresses for the UK and European Commission contact points listed in the above table. Applicants are advised to identify the most appropriate contact from the above table. For most entries the reference number after the contact's department will indicate which address from the list below to send enquiries to.

United Kingdom

1. **BETA Technology Ltd.,**
Riverside House, Weedon Street, Sheffield, S9 2FT.

2. **CCTA,**
Roseberry Court, St Andrews Business Park
Norwich, NR7 OHS

3. **Construction Industry European Research Club,**
BRE, Bucknalls Lane, Garston, Watford, WD2 7JR.

4. **Department of Agriculture for Northern Ireland,**
Dundonald House, Upper Newtownards Road,
Belfast, BT4 3SB.

5. **Department for Education and Employment,**
Tothill Street, London, SW1H 9NF.

6. **Department for Education and Employment,**
Sanctuary Buildings, Great Smith Street,
London, SW1P 3BT.

7. **Department for Education and Employment,**
Moorfot, Sheffield, S1 4PQ.

8. **Department of the Environment,**
2 Marsham Street, London, SW1P 3EB.

9. **Department of the Environment,**
Romney House, 43 Marsham Street, London, SW1P

10. **Department of Health, NHS Executive,**
Quarry House, Quarry Hill, Leeds, LS2 7UE.

11. **Department of Health,**
Skipton House, 80 London Road, London, SE1 6LW.

12. **Department of National Heritage,**
2–4 Cockspur Street, London, SW1Y 5DH.

13. **Department of Trade and Industry,**
151 Buckingham Palace Road, London SW1W 9SS.

14. **Department of Trade and Industry,**
19 Buckingham Street, London, WC2N 6EF.

15. **Department of Trade and Industry,**
1–19 Victoria Street, London, SW1H OET.

16. **Department of Transport,**
Great Minster House, 76 Marsham Street, London, SW1P 4DR.

17. **Health & Safety Executive,**
Broad Lane, Sheffield, S3 7HQ.

18. **Health & Safety Executive,**
Rose Court, 2 Southwark Bridge Road, London, SE1 9HS.

19. **HM Inspectorate of Pollution,**
Romney House,43 Marsham Street, London, SW1 3PY.

20. **Library and Information Commission,**
2 Sheraton Street, London, WIV 4BH.

21. **Medical Devices Agency,**
Hannibal House, Elephant & Castle, London, SE1 6TQ.

22. **Medical Research Council,**
20 Park Crescent, London, WIN 4AL.

23. **Ministry of Agriculture, Fisheries and Food,**
Nobel House, Smith Square, London, SW1P 3JR.

24. **National Environmental Technology Centre,**
Culham, Abingdon, Oxfordshire, OX14 3BD.

25. **National Physical Laboratory,**
Queens Road, Teddington, Middlesex, TW11 0LW.

26. **National Space Centre,**
Bridge Place, 88–89 Eccleston Square, London, SW1V 1PT.

27. **Office of Science and Technology,**
Albany House, Petty France, London, SW1H 9ST.

28. **Overseas Development Administration,**
94 Victoria Street, London, SW1E 5JL.

29. **Research Councils,**
Polaris House, North Star Avenue, Swindon
(Each council has a separate postcode),
BBSRC : *SN2 1UH*
EPSRC : *SN2 1ET*
ESRC : *SN2 1UJ*
NERC : *SN2 1EU*
PPARC : *SN2 1SZ*

30. **Scottish Office,**
Pentland House, 47 Robb's Loan, Edinburgh, EH14 1TW.

31. **50 Woodbridge Road,**
Newbourne, Woodridge, Suffolk, IP12 4PA.

European Commission

32. **DGVII,**
Avenue de Beaulieu 31, B–1160 Brussels, BELGIUM.

33. **DGXII/DGXIII,**
Rue de la Loi 200, B–1049, Brussels, BELGIUM.

34. **DGXII,**
Rue Montoyer 75, B–1049 Brussels, BELGIUM.

35. **DGXIII,**
Batiment Jean Monnet, LUXEMBOURG L–2920

36. **DGXVII,**
Avenue de Tervuren 226–236, B–1150, Brussels, BELGUIM.

ANNEX B
General Contact Points

EUROPEAN INFORMATION CENTRES (EIC)

Belfast	01232–491031
Birmingham	0121–454 6171
Bradford	01274–754262
Brighton	01273–326282
Bristol	0117–973 7373
Cardiff	01222–229525
Exeter	01392–214085
Glasgow	0141–221 0999
Hull	01482–465940
Inverness	01463–702560
Leeds	0113–283 2600
Leicester	0116–255 9944
Liverpool	0151–298 1928
London (Chamber of Commerce)	0171–489 1992
Maidstone	01622–694109
Manchester	0161–236 3210
Newcastle	0191–261 0026
Norwich	01603–625977
Nottingham	0115–962 4624
Southhampton	01703–832866
Stafford	01785–59628
Telford	01952–588766
Sheffield	0114–253 2126
Thames Valley (Slough)	01753–577877

INNOVATION RELAY CENTRES

Southern England	Piers Grey-Wilson (DERA)	Tel 01252–392343 Fax 01252–393318
Eastern England	Maureen Firlej (The Technology Broker)	Tel 01954–261199 Fax 01954–260291
Midlands	Charles Leonard (Coventry University, Enterprises Ltd)	Tel 01203–838140 Fax 01203–221396
Northern England	Gordon Ollivere (RTC North Ltd)	Tel 0191–549 8299 Fax 0191–548 9313
Scotland	Ian Traill (Euro Info Centre Ltd.)	Tel 0141–221 0999 Fax 0141–221 6539
Wales	Anthony Armitage (WDA)	Tel 01222–828739 Fax 01222–640030
Northern Ireland	Geoffrey Collins (LEDU)	Tel 01232–491031 Fax 01232–691432

CRAFT FOCAL POINTS — HELP FOR SMES

National Focal Point

Dr Bob Keown, Beta Technology Limited, Riverside House, Weedon Street, Sheffield, S9 2FT. (Tel. 0114–242 2004 Fax 0114–256 0950).

Thematic Focal Points

• Information Technology	ESPRIT Unit, DTI	Tel 0171–215 1378	Fax 0171–215 1966
• Industrial and Material Technology Standards, Measurements and Testing Biotechnology, Agro-industrial research	Beta Technology	(see above)	
• Environment (only areas 2.1 & 2.2.3)	NETCEN	Tel 0800–585 794	Fax 01235–463 804
• Marine Science and Technology	Cliff Funnell Associates	Tel 01234–552 921	Fax 01234–555 352
• Biomedicine and Health	Medical Research Council	Tel 0171–636 5422	Fax 0171–436 2665
• Non-nuclear energy	ETSU	Tel 01235–432621	Fax 01235–433 727

REGIONAL FOCAL POINTS

In January 1996, all the Innovation Relay Centres apart from the Relay Centres for Southern England and Scotland had agreed to host CRAFT Regional Focal Points. Please contact the CRAFT National Focal Point or the EC R&D team for an up to date list of these Focal Points.

ANNEX C

CLOSING DATES OF CALLS FOR PROPOSALS FOR THE SPECIFIC PROGRAMMES OF THE FOURTH FRAMEWORK PROGRAMME

Please note that the dates given are provided only as a guideline, are not fixed and are liable to change.
Calls for proposals normally open 3 months before the closing date and are published in the Official Journal.

FIRST ACTIVITY	
TELEMATICS	
• All areas except disabled and elderly	15.01.97
• Disabled and elderly	Late 1997
• Support actions [1]	15.06.98
INFORMATION TECHNOLOGIES	
• All areas [2]	15.06.96, 15.12.96
ADVANCED COMMUNICATIONS TECHNOLOGIES	
• All areas second call [3]	01.03.96
INDUSTRIAL AND MATERIALS TECHNOLOGY	
• Training and industrial experience	22.03.96, 27.09.96, 22.03.97, 27.09.97, 27.03.98
• Proposals for an exploratory award for an industrial collaborative research project [1]	12.06.96
• Proposals for an exploratory award for a co-operative research project [1]	11.06.97
• Co-operative research projects [1]	17.12.97
• Thematic networks [1]	17.12.97
STANDARDS MEASUREMENT AND TESTING [4]	
• Theme I	15.11.96
• Themes II and III	15.11.97
ENVIRONMENT AND CLIMATE	
• Advanced study courses and research training grants, all areas	30.03.96
• Exploratory awards, all areas	12.06.96
• Theme 3 only	15.09.96
• Topic 1.2.2 (part) only	15.01.97
• All areas	27.03.97
MARINE SCIENCE AND TECHNOLOGY (MAST)	
• 2nd Call [2]	October 1996/ January 1997
• Exploratory award proposals [5]	12.06.96, 16.10.96, 29.01.97, 11.06.97
• Co-operative research proposals [5]	12.06.96, 16.10.96, 29.01.97, 11.06.97, 17.12.97

FIRST ACTIVITY (continued)	
BIOTECHNOLOGY	
• Training Fellowships	01.03.96, 01.07.96, 01.11.96, 01.03.97, 01.07.97, 01.11.97, 01.03.98, 01.07.98
• 3rd Call, Areas: 2.2, 2.3, 3.1, 3.2.3, 5.1, 6.1, 6.2, 7.1, 7.3, 8, Horizontal	15.09.96
• 4th Call, Areas: 1, 2.1, 3.2.1, 4, 5.2, 6.1, 7.2, 7.4, 8, Horizontal	15.09.97
BIOMEDICINE AND HEALTH	
• Fellowships in Areas 1, 2, 3, 5	31.03.96
• Areas 1, 2, 3, 4.2, 5, not Fellowships	15.06.96
• All activities except Fellowships	15.12.96
• Fellowships in areas 4, 6, 7, 8	31.12.96
• Fellowships in all areas	31.12.97
AGRICULTURE AND FISHERIES [2]	
• 4th Call	September 1996
• 5th Call	March 1997
• 6th Call	September 1997
• Exploratory awards and co-operative research	From April 1995, 3 times per year
• Training	From April 1995
NON-NUCLEAR ENERGY	
• R&D projects	01.02.97
• Demonstration projects	01.02.97, 01.02.98
NUCLEAR FISSION SAFETY AND SAFEGUARDS	
• All areas	29.02.96
TRANSPORT	
• All areas Third call	15.12.96
• SME exploratory awards [5]	31.01.96, 12.06.96, 16.10.96
TARGETED SOCIO-ECONOMIC RESEARCH	
• 2nd Call	NOV/DEC 1996
• 3rd Call	1997/1998

SECOND ACTIVITY	
CO-OPERATION WITH THIRD COUNTRIES AND INTERNATIONAL ORGANISATIONS	
• 2nd Call [2]	September 1996
• 3rd Call [2]	1997
THIRD ACTIVITY	
DISSEMINATION & OPTIMISATION OF RESULTS	
• Regional actions and support of science parks	15.09.96
• Relay centre network, Complementary action	1997
• Technology transfer projects	1996, 1997
• Technology validation projects	1996, 1997
FOURTH ACTIVITY	
TRAINING AND MOBILITY OF RESEARCHERS	
• Research training grants	17.06.96, 16.12.96, 16.06.97, 15.12.97
• Research networks	01.02.97
• Accompanying measures	31.03.96, 30.09.96, 31.03.97, 30.09.97, 31.03.98
• Access to large-scale facilities	16.12.96, 16.06.97

Notes

1. There is a continuous open call for these areas until the dates given.
2. These calls for proposals are open to various areas of the programme, contact points will have further details.
3. The second call is restricted to certain parts of the programme. Contact the ACTS Central Office at the Commission for full details.
4. There will also be dedicated calls on an "as required" basis in support of community policy on standards, measurements and testing.
5. There is an open call for proposals for SME exploratory awards which will be evaluated in batches, the estimated date of future evaluations is listed.

The Fourth Framework Programme (FP4)

The Fourth European Community Framework Programme for research and technology development (1994–1998) has a budget of almost £11 billion, and funds collaborative research in a range of scientific and technical areas.

This guide offers, practical help to UK researchers wishing to participate in the Fourth Framework Programme (FP4). This revised version of the guide contains updated information on:

- deadlines for proposals;
- UK and European Commission points of contact;
- levels of funding available; and
- general sources of help and further information.