



THE SIXTH FRAMEWORK PROGRAMME

The Sixth Framework Programme covers Community activities in the field of research, technological development and demonstration (RTD) for the period 2002 to 2006



Work Programme

**ANTICIPATING
SCIENTIFIC AND TECHNOLOGICAL NEEDS**

New and emerging science and technology

(NEST)

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Note : This document contains extracts of the Work Programme for the FP6 specific programme « Integrating and Strengthening the European Research Area ». Not all of it is relevant to NEST.

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Work Programme Section 0 : General Introduction

(last updated : December 2002)

1. **General**

Following the adoption of the specific programme for research, technological development and demonstration: "Integrating and strengthening the European Research Area"¹ and the rules of participation and dissemination² under the EC Treaty, the Commission has adopted, with the assistance of the programme committee, this work programme which sets out in greater detail the objectives and technological priorities and the timetable for implementation of the specific programme, in particular for the first year of operation.

As regards the Priority Thematic Areas of Research, the new instruments (integrated projects and networks of excellence) are recognised as being an overall priority means to attain the objectives of critical mass, integration of the research capacities, management simplification and European added value.

The new instruments referred to will be used from the start in each theme and, where deemed appropriate, as a priority means, while maintaining the use of specific targeted projects and co-ordination actions. In particular, a smooth transition with previous programmes will be ensured.

In terms of participation of the Community in programmes undertaken by several Member States (Article 169 of the Treaty), this is only foreseen, at this stage, in the priority thematic area of research addressing 'life sciences, genomics and biotechnology for health'.

More information on the provisions for implementing the new instruments is available on Cordis (<http://www.cordis.lu/fp6/instruments/>)

Regarding research activities in areas involving Specific Activities Covering a Wider Field of Research, these will be implemented, at this stage, using specific targeted research projects, co-ordination actions, and specific research projects for small and medium sized enterprises (SMEs).

Concerning Strengthening the Foundations of the European Research Area, the implementation will mostly take the form of specific targeted research projects and co-ordination actions.

Specific support actions, including calls for tender, and co-ordination actions may be applied throughout the programme

In drawing up this work programme, the Commission has relied on advice from advisory groups and, for the Priority Thematic Areas of Research, on the results of a call for expressions of interest, which was launched in early 2002. More information on this, including the list of members of the advisory groups and the results of the call for expressions of interest, is available on Cordis.

¹ OJ L 294, 29.10.2002, p. 1.

² OJ L 355, 30.12.2002, p. 23.

2. Scope of Work Programme

The scope of this work programme corresponds to that defined in the specific programme. The calls for proposals planned within this work programme are those foreseen to close in 2003 along with, in many cases, an indication of those calls intended to close in 2004. Annex A gives an overview of these calls. Some topics in the specific programme have been left until a later stage and these will be addressed in future revisions of the work programme.

3. Cross Cutting Issues

There are several issues that are important to all parts of the work programme. These are addressed here and, as appropriate, elaborated in the various parts. Please note that the work related to statistics in this work programme will be implemented in close co-operation with EUROSTAT, in particular the parts relating to the priority thematic areas "Information Society technologies" and "Citizens and governance in a knowledge-based society", as well as the part addressing policy-oriented research under the heading "Specific activities covering a wider field of research".

- a) This work programme places special emphasis on the needs of small and medium-sized enterprises (SMEs). In particular, at least 15% of the funding allocated to the Priority Thematic Areas of Research is foreseen for SMEs. In order to reach this objective, special actions are foreseen such as SME specific calls for proposals in the context of the new instruments, reinforcement of National Contact Points, and specific training and take-up measures. In addition, the involvement of SMEs is taken into account in the evaluation criteria particularly for the new instruments. Also the fact that enterprise groupings which represent large communities of SMEs may play an active role in the new instruments will contribute to reaching the above-mentioned objective.
- b) Proposers based in Associated States may take part in this programme on the same footing and with the same rights and obligations as those based in Member States. In addition, this work programme underlines the importance of involving associated candidate countries in the Community's research policy and in the European Research Area. Specific support actions will also be implemented to stimulate, encourage and facilitate the participation of organisations from the candidate countries in the activities of the priority thematic areas. These will comprise information, awareness and training activities, promotion of candidate country competencies, support to researchers from these countries to participate in conferences and to prepare proposals, establishment and reinforcement of networks or centres of excellence between Member States and candidate countries, and between centres of excellence of candidate countries and within candidate countries, measures in support of SMEs in candidate countries to better participate, evaluation of RTD systems and policies in a particular field, the screening of research establishments active in a

particular field, and prospective studies aimed at defining research policies and organisation of research systems in a particular field.

- c) International co-operation represents an important dimension of the Sixth Framework Programme. As a contribution to a European Research Area open to the world, it will be implemented in the Sixth Framework Programme through three major routes:
- The opening of "Focusing and Integrating Community Research" to third country organisations with substantial funding,
 - Specific measures in support of international co-operation, and
 - International activities under the heading of Human Resources in the specific programme for research, technological development and demonstration "structuring the European Research Area".

The first two, as part of the specific programme "Integrating and strengthening the European Research Area", are covered by the present work programme. They also correspond to the second activity referred to in Article 164 of the Treaty, which covers co-operation with third countries and international organisations.

- *Opening of "Focusing and Integrating Community Research" to third country organisations*

Funding is available for the participation of researchers, teams and institutions from third countries in projects within the seven Priority Thematic Areas of Research, as well as under "Specific activities covering a wider field of research". Under this heading, the activities in question have the following overall objectives:

- To help European researchers, businesses and research organisations in the European Union and in the countries associated with the Framework programme to have access to knowledge and expertise existing elsewhere in the world, and
- To help ensure Europe's strong and coherent participation in the research initiatives conducted at international level in order to push back the boundaries of knowledge or help to resolve the major global issues.

Any particular issue concerning the international dimension of the seven Priority Thematic Areas of Research and of the Specific activities concerning a wider field of research is set out in the relevant chapter of this work programme.

Participants from all third countries³ and from international organisations may take part in all activities under this heading in addition to the minimum number of participants required.

³ There is currently no co-operation with Afghanistan, Iraq, Iran, Libya, Myanmar, or North Korea. This situation is subject to review, in line with the Community's external policies. Please check on Cordis for updates.

Participants from developing countries, Mediterranean partner countries, Western Balkan countries, as well as Russia and the new independent states (see the list of countries in Annex C) can be funded in all activities under this heading⁴. Other third country participants can also be funded in those areas where the relevant part of this work programme makes reference to this possibility or if it is essential for carrying out the research activity.

- *Specific measures in support of international co-operation*

315 million Euro will fund "Specific measures in support of international co-operation". In support of the external relations, including the development policy, of the Community, these measures target the following groups of third countries: Developing countries, Mediterranean partner countries, Western Balkan countries, and Russia and the new independent states. The activities and calls for proposals under this heading, which are complementary to the opening of the Priority Thematic Areas of Research, are presented in Chapter 10 of this work programme. Requirements for consortium composition are set out in this part.

- Participation and funding for third country entities under the heading "Strengthening the European Research Area"

International co-operation with third country partners and international organisations will be actively fostered on all topics which will benefit from such co-operation. Furthermore, third country entities and international organisations can benefit from Community financial contribution. To this end, topics for international co-operation will be specified, where appropriate, in calls. This applies particularly to those third countries with whom co-operation agreements have been concluded.

- d) Research activities carried out under this work programme must respect fundamental ethical principles and the requirements as stipulated in the decision on the specific programme for research, technological development and demonstration: "Integrating and strengthening the European Research Area". More information on the review procedure is foreseen in the "Guidelines on Proposal Evaluation Procedures" (<http://www.cordis.lu/fp6/eval-guidelines/>). Annex B to this work programme also details the issues to be covered in any ethical review.
- e) As much as possible and in association with the specific programme for research, technological development and demonstration "Structuring the European Research Area", the mobility of researchers will be promoted, particularly with a view to the successful creation of the European Research Area.

⁴ 285 million euro has in fact been allocated for participation from the targeted third countries (see Annex C) within the Priority Thematic Areas of Research and specific activities covering a wider field of research.

- f) This work programme attempts, where possible, to reinforce and increase the place and role of women in science and research both from the perspective of equal opportunities and gender relevance of the topics covered.
- g) A particular effort will be carried out to take into consideration the ethical, social, legal, regulatory and wider cultural aspects of the research including socio-economic research, and innovation, resulting from the possible deployment, use and effects of the newly developed technologies or processes and scenarios covered by each of the thematic priorities. This effort will be complemented by socio-economic research carried out within the priority addressing 'Citizens and governance in a knowledge-based society'.
- h) In the context of the regular report to be submitted to the European Parliament and the Council, the Commission will report in detail on progress in implementing the specific programme, and, in particular, progress towards achieving its objectives and meeting its priorities.

4. Submitting a Proposal

Proposals should be submitted under the terms of a call for proposals⁵. In order to submit a proposal, a proposer should consult the following:

- This work programme,
- The relevant call for proposals as it is published in the Official Journal of the European Communities, and
- The relevant Guide for Proposers.

These and a number of other useful texts, including the rules for participation and details on the contracts, are available on Cordis (as referred to above).

5. Cross Cutting Proposals

Proposals are invited to be submitted on the basis of calls for proposals, which are, in the case of the Priority Thematic Areas of Research organised thematically. Proposals that address more than one thematic area will be accommodated by the Commission, provided the proposal addresses areas covered by this work programme.

The specific programme is focused on a number of thematic priorities. They encompass a wide range of disciplines and proposals that cut across the boundaries of themes are to be expected. The criterion of relevance to the objectives of the specific programme is a sine qua non for the further consideration of such proposals. Furthermore, proposals will not be accepted if they do not fall within the scope of the work programme.

Cross-cutting proposals may be categorised as follows:

⁵ Proposals for specific support actions, which do not fall within the scope of a call for proposals, may be submitted to the Commission only when it is provided for in this work programme.

- **Proposals with a clear "centre of gravity".** Given the nature of research carried out today, a large proportion of proposals contain some degree of multi-disciplinarity. These are handled by normal submission and evaluation procedures. For proposals which contain a significant technological or thematic element from a different part of the programme, the procedure involves the proposal being treated by the thematic area represented by the greatest proportion of the proposal (ie, its "centre of gravity"). For proposals where the centre of gravity is not immediately obvious, the Commission will examine the proposal content and decide in which thematic area the proposal is best handled. If a proposal is transferred to a thematic area other than the one to which it was submitted, it will be handled in the framework of the new thematic area. However, if the new centre of gravity does not have an open call at the time of transfer, the proposal will be held over, with the agreement of the proposers, until a suitable call is open, but only if such a call is explicitly foreseen by the work programme. If successful, the proposal will be handled and funded by the thematic centre of gravity.
- **Joint calls for proposals.** In certain fields, it is clear that proposals will always contain a high proportion of interest for different thematic areas. In this instance, the Commission uses calls for proposals issued jointly by two or more programme/thematic areas, with a pooling of budget. This procedure only occurs for well-defined areas where the cross cutting nature of the proposals to be received can be clearly identified in advance.
- **Proposals with horizontal interest.** These relate to proposals which are of general interest to all parts of the specific programme but of no specific interest to an individual part. If such proposals are truly innovative and ground breaking, there is the possibility of referring them to the work programme part that addresses "anticipating scientific and technological needs", once this part is open for the receipt of such proposals. Proposals with a horizontal interest which do not meet this criterion may, if applicable, be handled like proposals with a centre of gravity (see first bullet point).

6. ***Evaluation Criteria and Related Issues***

The "Guidelines on Proposal Evaluation Procedures" describes the basic procedures to be followed by all programmes under the Sixth Framework Programme of the European Community.

The set of criteria applicable to this work programme is given in Annex B. Any complementary criteria are clearly stated in the relevant part of this work programme. Evaluation thresholds for each set of criteria are given in Annex B and apply unless otherwise clearly stated. In addition, Annex B outlines how the following will be addressed: gender issues, ethical and/or safety aspects, and the education dimension.

All proposals before they are selected for funding and which deal with ethical issues and any proposal for which ethical concerns have been identified during

the scientific evaluation may be reviewed by a separate ethical review panel. The "Guidelines on Proposal Evaluation Procedures" gives more details on the evaluation procedure as a whole as well as details of the ethical review procedure.

Furthermore, the work programmes, and consequently their calls for proposals, may specify and restrict the participation of legal entities in an indirect action according to their activity and type, according to the instrument deployed and to take into account specific objectives of the Framework Programme.

Calls for proposals may involve a two-stage evaluation procedure. When such a procedure is employed, this is stated clearly in the call for proposals. More information on this process is given in the "Guidelines on Proposal Evaluation Procedures".

7. Specific Support Actions

Support activities are more limited in scope than the accompanying measures of the previous Framework Programmes. These projects aim to contribute actively to the implementation of activities of the work programme, the analysis and dissemination of results or the preparation of future activities, with a view to enabling the Community to achieve or define its RTD strategic objectives. Therefore, a significant emphasis has been placed on Support Actions:

- to promote and facilitate the dissemination, transfer, exploitation, assessment and/or broad take-up of past and present programme results (over and above the standard diffusion and exploitation activities of individual projects);
- to contribute to strategic objectives, notably regarding the European research area (e.g. pilot initiatives on benchmarking, mapping, networking, etc.);
- to prepare future community RTD activities, (e.g. via prospective studies, exploratory measures, pilot actions etc.);

as opposed to awareness and information exchange activities, e.g. annual Workshops and Conferences, that would take place anyway without Commission support. The latter activities will not be welcome if they do not serve the programme's strategic objectives, (in the sense of the European Research Area, improved co-ordination, public awareness, preparation of future Community initiatives, etc.).

Work Programme Section 8 : New and Emerging Science and Technology (NEST) (last updated : 20 February 2003)

8.2.1 Introduction, objectives and overall approach

Under the sixth framework programme, Community research is organised mainly around a small number of highly concentrated “thematic priorities”, which focus a high level of funding on areas where research is expected to have the greatest potential to benefit Europe’s society and economy in the medium term. By necessity, the research fields associated with the thematic priorities are sufficiently well established to enable the future directions of scientific and technological progress to be sketched out with some confidence.

But if Europe is to maintain a truly dynamic research capability, it needs not only to support the critical research areas for tomorrow, but also to seek out the most promising opportunities for the day after. Advances in scientific understanding are punctuated by unexpected developments – new theoretical insights, unforeseen experimental findings, the availability of higher-resolution instrumentation - that create new avenues for science and technology, for example by providing ways to resolve long-standing problems or by opening up productive new directions for research.

At the same time, Europe needs to be aware of potential problems and risks arising from new developments in the science base at the earliest possible time, and take appropriate steps to address them.

NEST provides a means to anticipate scientific and technological opportunities and needs in new and emerging areas. It will support research that falls within the legitimate scope of Community research and which cuts across or lies outside the thematic priority areas, in particular because it is highly interdisciplinary and/or multidisciplinary. The research will also respond to unexpected major developments.

NEST supports three main types of actions, with no *a priori* restriction on research areas to be addressed, but with a distinctive profile.⁶

- **ADVENTURE projects**: Research projects in emerging areas of knowledge and on future technologies, in particular in multidisciplinary fields, which are highly innovative and involve high (technical) risks.
- **INSIGHT projects**: Research projects aimed at assessing new discoveries and newly-observed phenomena, which may indicate important potential problems or risks to society.

⁶ The first two actions comprise the “initial priorities” under the specific programme. PATHFINDER initiatives, by contrast, will be established during the course of implementation of the programme.

- ***PATHFINDER initiatives***. Larger-scale actions, focusing on emerging areas of science and technology that are identified, in conjunction with the scientific community, as having particular promise and/or urgency.

Because NEST is a new initiative for Community research, the specific features of these actions, their means of implementation and the balance between them may be adapted in the light of progress achieved during the course of the programme.

It is envisaged that participants from any third country may, in appropriate cases, participate.

8.2.2 Technical content

8.2.2.1 ADVENTURE projects

ADVENTURE projects are “visionary” research projects, which aim to create and/or develop new opportunities for science and technology which could have a very high potential payoff in the long term, in particular in new interdisciplinary areas. They are identified by their characteristics of significant novelty, very high ambition, and high impact. They will support research which aims to create significant advances in knowledge, scientific progress and/or technical capability, for example through new approaches to investigation and analysis, and unconventional ways of developing or exploiting knowledge. As they are intended to be radical, with high potential rewards, they will also involve high risk. Successful projects should have an impact well beyond their specific results, for example by establishing new possibilities for scientific and technological advance. Research under ADVENTURE projects must cut across or lie outside the thematic priorities.

ADVENTURE projects will be specific targeted research projects.

8.2.2.2 INSIGHT projects

INSIGHT projects aim to explore and evaluate new discoveries and newly-observed phenomena which may indicate emerging risks or problems of high importance to European society. They provide a means to generate and consolidate scientific understanding, and to assist the development of appropriate strategies in response.

INSIGHT projects could provide added value to work at national level and in other spheres, for example, by addressing potential risks at a very early stage; by providing an early opportunity to develop common frameworks within Europe for understanding implications of newly emerging issues; or by fostering unconventional thinking and the development of new analytical, methodological and technical approaches for assessing and responding to problems and risks, for example in relation to interdisciplinary and systemic issues.

INSIGHT projects will generally be either specific targeted research projects or co-ordination actions. However, where the need for European research on a scientific or technological development, falling within the terms of reference of an INSIGHT project, is identified as particularly urgent, the Commission may request proposals for “brief INSIGHT” projects on specific topics, in the form of specific support actions, limited in duration and budget.

8.2.2.3 ADVENTURE and INSIGHT projects - means of implementation

For ADVENTURE and INSIGHT projects, a call for proposals will be opened, which for specific targeted research projects (STREPs) will involve a 2-stage submission procedure.

At the first stage, outline proposals will be submitted, which will be evaluated in order to assess the suitability of the research to the objectives of the NEST activity. Those proposers whose proposals pass the first stage evaluation and score highest will be invited to submit full proposals for the second stage evaluation. The number of proposals retained following the first stage evaluation may be restricted so as to ensure that the over-subscription rate for funds is limited. At the second stage, full proposals will be submitted and evaluated, those scoring highest being retained as the basis of a short list for selection by the Commission.

At either stage, the evaluation may be done with the help of external referees (independent experts working remotely at their premises) and/or panels of experts that convene to consolidate the referees' individual assessments.

8.2.2.4 PATHFINDER initiatives

These are larger scale targeted actions, that will focus on emerging areas of science and technology which have significant potential for Europe in the long term. The objectives are to seed the early development and emergence of research around a particular strategic perspective, and generate a significant "leverage" effect on the early development and consolidation of European research capabilities. Where the potential of these fields is demonstrated, PATHFINDER actions could form a precursor to more conventional funding through the framework programme.

PATHFINDER initiatives will be progressively introduced into the work programme. Each will normally comprise a "portfolio" of projects, with an appropriate budget. They will be launched by means of specific (targeted) calls for proposals. Each initiative could involve one or more calls for proposals (ie sometimes covering two consecutive years of the framework programme).

The topics will be identified during the course of implementation of the framework programme, in conjunction with the scientific community, on the basis of their particular future potential.

8.2.2.5 SUPPORT ACTIONS

Support actions, focused on the conceptual and practical questions associated specifically with the research domain of NEST, will be carried out to assist in the development and exploitation of NEST activities. These will include :

1. Promotion of interaction with the research community and the identification of opportunities for research under NEST;
2. Analysing the conduct of highly advanced science and technology in the European context, and on a comparative basis, and the specific socio-cultural and economic factors affecting its performance.

3. Analysing the dynamics of scientific and technological change, and management issues specific to high risk and interdisciplinary research.
4. Improving the methodological basis for addressing systemic and societal vulnerabilities to science-based hazards.

Being specific to NEST, these activities will complement relevant work carried out in other parts of the framework programme (e.g. foresight, science in society actions).

8.2.3 Call information

1. **Specific Programme:** “Integrating and strengthening the European Research Area”
2. **Activity:** “Anticipating scientific and technological needs”.
3. **Call title:** New and Emerging Science and Technology – (call with 2 closure dates).
4. **Call reference number/identifier:** FP6-2003-NEST-A
5. **Date of publication**⁷: 20 February 2003.
6. **Date from which proposals are receivable:** 1 April 2003; pre-registration of proposals, no later than 3 weeks before the relevant closure date, is strongly recommended.
7. **Call closure dates:** 14 May 2003 at 17.00 (Brussels local time); 22 October 2003 at 17.00 (Brussels local time)^{8, 9}.
8. **Total indicative budget:** EUR 28 million.

9. **Areas called and Instruments**

<u>Area</u>	<u>Instruments</u> ¹⁰
INSIGHT	STREPs, CAs
ADVENTURE	STREPS
Support Actions	SSAs

10. **Minimum number of participants**¹¹:

<u>Instrument</u>	<u>Minimum number</u>
STREPs and CAs	3 independent legal entities from 3 different MS or AS, with at least 2 MS or ACC
Specific support actions	1 legal entity from 1 MS or AS

⁷ The Director-General responsible for the call may publish it up to one month prior to or after the envisaged date of publication.

⁸ It is envisaged that this call will be re-opened in 2004 and subsequently to assure a continuing sequence of evaluation closure dates at approximately 6 monthly intervals.

⁹ Where the envisaged date of publication is either advanced or delayed, closing dates may be adjusted accordingly.

¹⁰ STREP = specific targeted research project; CA = co-ordination action; SSA = specific support action.

¹¹ MS = Member States of the EU; AS (incl. ACC) = Associated States; ACC: Associated candidate countries.

11. Restriction on participation: none.

12. Consortia agreements: It is not mandatory that participants in RTD actions resulting from this call conclude a consortium agreement although such agreements are strongly recommended.

13. Evaluation procedure:

- The evaluation is carried out through a combination of referees (remote evaluation) and groups of experts that convene in Brussels.
- Proposals for STREPs have to be submitted in two stages:
 - first an *outline* proposal of maximum 5 pages is submitted describing the key objectives methodology and motivation for the proposed work. *Outline* proposals are evaluated anonymously.
 - If the *outline* proposal is successful, the proposers are invited to submit a *full* proposal¹². The evaluation of *full* proposals is not anonymous.
- Proposals for CAs and SSAs have to be submitted as *full* proposals. *Full* proposals are evaluated non-anonymously.
- Closure dates for the submission of the proposals: 14 May at 17.00 (Brussels local time) and 22 October 2003 at 17.00 (Brussels local time)¹³.

14. Evaluation criteria: For STREPs and CAs, see the criteria and thresholds for the different project types and instruments in section 8.2.4 of the Work-programme. SSAs will be evaluated according to the criteria in Annex B of the work programme.

15. Indicative evaluation and selection delays:

- Evaluation results for outline proposals: 3 months from the relevant closure date;
- Evaluation results for *full* proposals: 3 months from the relevant closure date.
- Contract signature : it is estimated that the first contracts related to this call will come into force seven months after the relevant closure date for evaluation of full proposals.

¹² In principle, by the next specified closure date.

¹³ Where the envisaged date of publication is either advanced or delayed, cut-off dates may be adjusted accordingly.

8.2.4 Evaluation criteria

8.2.4.1 Evaluation criteria INSIGHT projects: Specific targeted research projects

1. Relevance to the objectives of the programme

Is the proposed project **within the scope of INSIGHT projects**?

- Does it address a **new discovery or newly-observed phenomenon**, which has a **high potential for serious problems or risks** to European society?
- Are there **significant scientific uncertainties** that need to be clarified or resolved? Does the project fill a **need for better scientific understanding** at European level?
- Does it cut across or lie outside the thematic priorities?

2. Scientific and technological excellence

- Does the project have clearly **defined and well-focused objectives**?
- Do they represent **clear progress beyond the scientific state-of-the-art** (and where relevant overcome its existing **limitations**)?
- Where the project addresses **complex or inter-disciplinary questions**, and/or **challenges orthodoxy** or involves radical and unconventional approaches, is the methodology **convincing**?

Outline proposals only

- Is the proposed scientific approach **plausible**?

Full proposals only

- Is the proposed scientific approach **well thought out**, and **likely to enable the project to achieve its objectives**?

3. Potential impact

- If successful, will the project provide results of **significant value to strategic decision making**?
- Does the project address uncertainties and/or areas of ignorance in a manner that will enable **robust strategies** to be developed?
- Can the impact of the proposed work best be achieved if carried out at **European level**?

Full proposals only

- Are exploitation and/or dissemination plans adequate to ensure **optimal use of the project results**?

4. Quality of the consortium

Full proposals only

- Do the participants collectively constitute a **consortium of high quality**?
- Are the participants **well-suited and committed to the tasks** assigned to them?
- Is there **good complementarity** between participants?

5. Quality of management

Full proposals only

- Is the **project management** of demonstrably high quality?
- Is it appropriate and sufficient to provide **necessary guidance** to policy makers and/or other involved actors?
- Is the dissemination plan **appropriate, well-balanced and effective**?

6. Mobilisation of resources

Outline proposals only

- The evaluators will comment on, but not assess, whether the resources requested seem reasonable for achieving the project objectives.

Full proposals only

- Are the foreseen **resources** (personnel, equipment, financial ...) **necessary and sufficient** for success?
- Are these **resources** **convincingly integrated** to form a coherent project?
- Is the **overall financial plan** for the project adequate?

Thresholds

Criterion	Outline proposals	Full proposals
1	4	4
2	4	4
3	3	3
4	Not applicable	3
5	Not applicable	3
6	Not applicable	3

8.2.4.2 Evaluation criteria INSIGHT projects: Co-ordination actions

1. Relevance to the objectives of the programme

The extent to which the proposed project is **within the scope of INSIGHT projects**:

- Does it address a **new discovery or newly-observed phenomenon**, which has a **high potential for serious problems or risks** to European society?
- Are there **significant scientific uncertainties** that need to be clarified or resolved? Does the project fill a **need for better scientific understanding** at European level?
- Does it **cut across, or lie outside**, the thematic priorities?

2. Quality of the co-ordination

- Do the research actions to be co-ordinated represent **clear progress beyond the current state-of-the-art**?
- Are the **co-ordination mechanisms** proposed sufficiently **robust** for ensuring the goals of the action?

3. Potential impact

- Will the project provide results of **significant value to strategic decision making**?
- **Is Community support** important in achieving the **potential impact** of the proposed work?
- Are exploitation and/or dissemination plans adequate to ensure **optimal use of the project results**?

4. Quality of the consortium

- Do the participants collectively constitute a **consortium of high quality**?
- Are the participants **well-suited and committed to the tasks** assigned to them?
- Is there **good complementarity** between participants?

5. Quality of the management

- Is the **project management** demonstrably of high quality?
- Is there a satisfactory plan for the **management of knowledge**, of intellectual property and of other innovation-related activities?

6. Mobilisation of resources

- Does the project **mobilise the critical mass of resources** (personnel, equipment, financial, ...) necessary for success?
- Are the resources **convincingly integrated** to form a coherent project?
- Is the overall **financial plan** for the project **adequate**?

Thresholds

Criterion	Threshold
1	4
2	4
3	3
4	3
5	3
6	3

8.2.4.3 **Evaluation criteria ADVENTURE projects: Specific targeted research projects**

1. **Relevance to the objectives of the programme**

Does the proposed project match the **spirit of ADVENTURE**:

- Does it open up **new or emerging areas of science and technology**, is it highly **novel**, does it have **tangible, ambitious and challenging objectives**, is it a **high impact/high risk project**?
- Does the envisaged research **cut across or lie outside** the thematic priorities?

2. **Scientific and technological excellence**

- Are the objectives tangible and **challenging**, in the sense of a **clearly defined** scientific achievement or basic technology, and highly ambitious?
- Do they represent **clear progress well beyond the current state-of-the-art**?
- Does the research feature **significant and clearly identifiable elements of novelty**? Is it **highly innovative**?

Outline proposals only

- Is the proposed scientific / technological approach **plausible**?
- ##### **Full proposals only**
- Is the proposed scientific approach **well thought out and scientifically sound**? Could it enable the project to achieve its objectives?

3. **Potential impact**

- If successful, will the project have a **large impact on Europe's scientific or technological capability**, in areas with a potential, perhaps **long-term, societal or economic impact**?
- Are the **potential benefits** sufficiently large to justify the level of **risk** of the project?
- Will the impact be best achieved if the project is carried out at **European level**?

4. **Quality of the consortium**

Full proposals only

- **Do the participants collectively constitute a consortium of high quality**? Do the key **research personnel** have sufficient credibility for the task?
- Is all the necessary **expertise** available in the consortium? Are the participants **well-suited to the tasks** assigned to them? Are they **committed** to the project?
- Is there **good complementarity** between participants?

5. **Quality of management**

Full proposals only

- Is the **project management** of demonstrably high quality?
- Are there satisfactory provisions to deal with the inter-disciplinary aspects and **important risk elements**?
- Is there a satisfactory plan for the **management of knowledge** (e.g. dissemination, use, intellectual property, etc.) and for promoting innovation, where relevant?

6. **Mobilisation of resources**

Outline proposals only

- The evaluators will comment on, but not assess, whether the resources requested seem reasonable for achieving the project objectives.

Full proposals only

- Are the foreseen **resources** (personnel, equipment, financial, ...) **necessary and sufficient** for success?
- Are these **resources convincingly integrated** to form a coherent project?
- Is the **overall financial plan** for the project adequate?

Thresholds

Criterion	Outline proposals	Full proposals
1	4	4
2	4	4
3	3	3
4	Not applicable	3
5	Not applicable	3
6	Not applicable	3

Annex A :
Overview of Calls for Proposals foreseen in this Work Programme
(see relevant work programme part for details)
(last updated : March 2003)

1. Life sciences, genomics and biotechnology for health	(i) FP6-2002-Lifescihealth - publication 17/12/2002; closure 25/03/2003; budget 513 M€
2. Information Society technologies	(i) FP6-2002-IST-1- publication 17/12/2002; closure 24/04/2003; budget 1070 M€ (ii) FP6-2002-IST-C-publication 17/12/2002; closing 31/12/2004; budget 60 M€ (iii) FP6-2002-IST-NMP-1(joint) - publication 17/12/2002; closing 24/04/2003; budget 60 M€ (iv) FP6-2002-IST- publication 17/06/2003; closure 15/10/2003; budget 525 M€
3. Nano-technologies and nano-sciences, knowledge-based multifunctional materials, and new production processes and devices	(i) FP6-NMP-1- publication 17/12/2002; closures 6/03/2003 and 10/04/2003; budget 400 M€ (ii) FP6-2002-IST-NMP-1-(joint) publication 17/12/2002; closing 24/04/2003; budget 60 M€ (iii) FP6-NMP-2- publication 17/12/2002; closure 10/04/2003; budget 40 M€
4. Aeronautics and space	(i) FP6-Aero-1- publication 17/12/2002; closure 20/03/2003; budget 240 M€ (ii) FP6-Aero-2- publication 17/12/2002; closure 20 March 2003 and 23 September 2003; budget 7 M€ (iii) FP6-2002-TREN1 (joint)-publication 17/12/2002; closures 18,20/03/2003 and 15/04/2003; budget 140 M€ (iv) FP6-2002-TREN2 (joint)-publication 17/06/2003 closure 17/12/2003; budget 175 M€ (v) FP6-2002-Space 1- publication 17/12/2002; closure 20/03/2003; budget 60 M€
5. Food quality and safety	(i) FP6-2002-Food 1 - publication 17/12/2002; closure 15/04/2003; budget 167 M€
6. Sustainable development, global change and ecosystems	(a) Sustainable Energy Systems: (i) FP6-2002-TREN1(joint)-publication 17/12/2002; closures 18,20/03/2003 and 15/04/2003; budget 140 M€ (ii) FP6-2002-Energy 1- publication 17/12/2002; closure 18/03/2003; budget 198 M€ (iii) FP6-2002-Energy 2- publication 17/06/2003; closure 17/12/2003; budget 155 M€ (iv) FP6-2002-Energy 3- publication Sept 2003; closure December 2003; budget 4 M€ (b) Sustainable surface transport: (i) FP6-2002-TREN1(joint)-publication 17/12/2002; closures 18,20/03/2003 and 15/04/2003; budget 140 M€ (ii) FP6-2002-TREN2 (joint)-publication 17/06/2003 closure 17/12/2003; budget 175 M€ (iii) FP6-2002-Transport 1- publication 17/12/2002; closure 15/04/2003; budget 170 M€ (iv) FP6-2002-Transport 2- publication 17/12/2002; closure 3 April 2003 and 23 September 2003, budget 5 M€ (c) Global change and ecosystems: (i) FP6-2002-Global 1-publication 17/12/2002; closure 8/4/2003; budget 170 M€
7. Citizens and governance in a knowledge-based society	(i) FP6-2002-Citizens 1-publication 17/12/2002; closure 15/04/2003; budget 20 M€ (ii) FP6-2002-Citizens 2-publication 17/12/2002; closure 15/04/2003, budget 33 M€ (iii) FP6-2002-Citizens 3-publication 17/12/2002; closure 10/12/2003; budget 48 M€
8. Policy support and anticipating scientific and technological needs	(a) Policy-oriented research: (i) FP6-2002-SSP 1 - publication 17/12/2002; closure 13/03/2003; budget 149,1 M€ (b) New and Emerging S&T problems and opportunities: (i) FP6-2003-NEST-A-publication 26/02/2003; closure 22/10/2003; budget 28M€
9. Horizontal research activities involving SMEs	(i) FP6-2002-SME 1-publication 17/12/2002; closure 27/11/2003; budget 155 M€ (ii) FP6-2002-SME 2-publication 17/12/2002; closure 6/03/2003; budget 40 M€

10. Specific measures in support of international co-operation	(i) FP6-2002-INCO DEV 1- publication 17/12/2002; closure 11/09/2003, budget 50 M€ (ii) FP6-2002-INCO MPC 1-publication 17/12/2002; closure 7/05/2003; budget 25 M€ (iii) FP6-2002-INCO WBC1-publication 17/12/2002; closure 7/05/2003, budget 13.5 M€ (iv) FP6-2002-INCO DEV/SSA 1-publication 17/12/2002; closure 6/03/2006; budget 1 M€ (v) FP6-2002-INCO MPC/SSA 2-publication 17/12/2002; closure 6/03/2006; budget 0.6 M€ (vi) FP6-2002-INCO WBC/SSA3-publication 17/12/2002; closure 6/03/2006; budget 0.6 M€ (vii)FP6-2002-INCO-Russia+NIS/SSA-4 - publication 17/12/2002; closure 6/03/2006; budget 0.6 M€ (viii)FP6-2002-INCO-COMultilatRTD/SSA 5 - publication 17/12/2002; closure 6/03/2006; budget 0.6 M€
11. Support for the co-ordination of activities	(i) FP6-2002-ERA-NET/1/CA-SSA - publication 17/12/2002; closing 4/10/2005; budget 24 M€for 2003
12. Support for the coherent development of policies	None foreseen under the current work programme.
D. Promotion of co-operation with Associated Candidate Countries	(i) FP6-2003-ACC-SSA-General - publication 26/03/2003; closure 26/06/2003, budget 9 M€ (ii) FP6-2003-ACC-SSA-NMP; FP6-2003-ACC-SSA-Aero-Space; FP6-2003-ACC-SSA-Food; FP6-2003-ACC-SSA-Energy; FP6-2003-ACC-SSA-Transport - publication 26/03/2003; closure 26/06/2003, budget up to 4 M€

Annex B

(last updated : December 2002)

Common evaluation criteria for evaluating proposals

A number of evaluation criteria are common to all the programmes of the Sixth Framework Programme and are set out in the European Parliament and the Council Regulations on the Rules for Participation (Article 10). These are:

- a) “Scientific and technological excellence and the degree of innovation;
- b) Ability to carry out the indirect action successfully and to ensure its efficient management, assessed in terms of resources and competences and including the organisational modalities foreseen by the participants;
- c) Relevance to the objectives of the specific programme;
- d) European added value, critical mass of resources mobilised and contribution to Community policies;
- e) Quality of the plan for using and disseminating the knowledge, potential for promoting innovation, and clear plans for the management of intellectual property.”

Furthermore, in applying paragraph (d) above, the following criteria are also to be taken into account:

- a) “For networks of excellence, the scope and degree of the effort to achieve integration and the network’s capacity to promote excellence beyond its membership, as well as the prospects of the durable integration of their research capabilities and resources after the end of the period covered by the Community’s financial contribution;
- b) For integrated projects, the scale of the ambition of the objectives and the capacity of the resources to make a significant contribution to reinforcing competitiveness or solving societal problems;
- c) For integrated initiatives relating to infrastructure, the prospects of the initiative’s continuing long term after the end of the period covered by the Community’s financial contribution.”

As set out in the Rules for Participation, the calls for proposals determine, in accordance with the type of instruments deployed or the objectives of the RTD activity, how the criteria set out above are applied by the Commission.

The purpose of this annex is to indicate how these criteria shall be applied. In particular, as the Sixth Framework Programme contains a differentiated set of instruments, the way in which each criterion translates into the issues to be examined as the basis for marking proposals will differ. In evaluating against these criteria, the checklists of issues set out in the following pages are intended to be universal for each type of instrument.

Unless otherwise specified in the relevant parts of this work programme, the principal issues set out below (i.e. the main numbered headings) will be given equal weighting in the evaluation. For each principal issue, a minimum score to be achieved is also indicated as well as a minimum overall score for each instrument. Proposals that fail to achieve these minimum threshold scores shall be rejected. Any departures from these threshold scores are indicated in the relevant part of this work programme.

In addition to the basic checklists below and any specific criteria or interpretations of the criteria required for a call, the following issues are also addressed for all proposals at any appropriate moment in the evaluation:

- Are there **gender** issues associated with the subject of the proposal? If so, have they been adequately taken into account?
- Have the applicants identified the potential **ethical** and/or **safety** aspects of the proposed research regarding its objectives, the methodology and the possible implications of the results? If so, have they been adequately taken into account in the preparation of the proposal?

An ethical check will take place for all proposals during the evaluation. A specific ethical review will be implemented following the evaluation for proposals recommended for funding and which deal with specific sensitive issues or whenever recommended following the ethical check during the evaluation. To this end, additional information on ethical aspects may be requested from proposers to allow the specific ethical review to be carried out. (See the section “The ethical review of proposals” below for more details on the criteria to be applied).

When appropriate, the following additional issues may also be addressed during the evaluation:

- To what extent does the proposal demonstrate a readiness to engage with actors beyond the research community and the public as a whole, to help spread awareness and knowledge and to explore the wider **societal implications** of the proposed work?
- Have the synergies with **education** at all levels been clearly set out?
- If **third country participation** is envisaged in the proposal, is it well justified and the participation well integrated in the activities?

Specific Support Actions

The following set of issues is intended to be common to all parts of FP6 for the evaluation of proposals for specific support actions.

1. Relevance (threshold score 4 out of 5)

The extent to which

- the proposal addresses key issues to defined in the work programme/call, specific programmes or ERA, as appropriate.

2. Quality of the support action (threshold score 3 out of 5)

The extent to which:

- the proposed objectives are sound and the proposed approach, methodology and work plan are of a sufficiently high quality for achieving these objectives.
- the applicant(s) represent(s) a high level of competence in terms of professional qualifications and/or experience.
- the proposed activities are innovative and original (*if applicable*).

3. Potential impact (threshold score 3 out of 5)

The extent to which:

- the impact of the proposed work can only be achieved if carried out at European level.
- the Community support would have a substantial impact on the action and its scale, ambition and outcome.
- exploitation and/or dissemination plans are adequate to ensure **optimal use of the project results**, where possible beyond the participants in the project.

4. Quality of the management (threshold score 3 out of 5)

- The extent to which the management structure is credible in terms of professional qualifications, experience, track record and capacity to deliver.

5. Mobilisation of resources (threshold score 3 out of 5)

The extent to which :

- the project provides for the **resources** (personnel, equipment, financial...) necessary for success.
- the overall **financial plan** for the project **is adequate**.

Overall threshold score 17.5 out of 25.

The ethical review of proposals

In accordance with Article 3 of the Framework Programme and Article 10 of the Rules for Participation, the evaluation procedure includes a check of any ethical issues raised by proposals. A specific ethical review of proposals involving sensitive ethical issues may take place after the evaluation and before any selection decision by the Commission. For this purpose, an ethical review (ER) panel may be convened.

The ER panel assesses the following elements:

- The awareness of the proposers of the ethical aspects of the research they propose
- Whether the researchers respect the ethical requirements of the 6th Framework Programme. In this respect, a declaration to the minutes of the Council meeting of 30.09.2002 was made; this is set out at the end of this section.
- Whether the proposers have taken into account the legislation, regulations and/or guidelines in place in the country(ies) where the research takes place
- Whether the relevant international conventions and declarations are taken into account¹⁴
- Whether the relevant Community Directives are taken into account.
- Whether the proposer is seeking the approval/favourable opinion of relevant local ethics committees

For research involving human beings, the ER panel assesses in particular:

- The information which is given to the participants (healthy volunteers, tissue donors, patients, etc.)
- Measures taken to protect participants' personal data (including genetic data) and privacy
- Recruitment criteria and means by which the recruitment is to be conducted
- Level of care offered to participants

For research involving isolated or banked human embryonic stem cells in culture and foetal tissues and cells (for which restrictions apply, see the declaration to the Council minutes below) the ER panel assesses in particular:

- Whether the proposers have taken into account the legislation, regulations and/or codes of conduct in place in the country(ies) where the research using human embryonic stem cells in culture will take place. The procedures for obtaining informed consent
- The source of the human embryonic and foetal tissues/cells.
- Measures taken to protect personal data (including genetic data) and privacy

¹⁴ Charter of Fundamental Rights of the European Union, signed in Nice, 7 December 2000
Convention on Human rights and Biomedicine – Oviedo, 4.04. 1997 - Council of Europe and the Additional protocol on the prohibition of Cloning of human beings (1998)
Universal declaration on the Human genome and human rights - Unesco - 11 November 1997
Declaration of Helsinki (in its latest version) - World Medical Association
Convention on the Rights of the Child – United Nations - 20 November 1989
Amsterdam protocol on an animal protection and welfare

- The nature of financial inducements, if any.

For research involving animals, the ER panel assesses in particular:

- Whether the proposers are applying the ‘Three Rs’ principle: Replacement, Reduction and Refinement, and in particular:
 - ◆ Are animal experiments replaced by alternatives whenever possible?
 - ◆ Is animal suffering avoided or kept to a minimum?
 - ◆ Is animal welfare guaranteed and are the principles of biodiversity respected?

With respect to research involving human embryonic stem cells (as mentioned above), the relevant declaration to the minutes of the Council meeting of 30 September 2002 is as follows:

The Council states that it intends to discuss this issue at a meeting in September 2003. In the review of any subsequent proposal submitted to Council when applying Article 5 of the Decision 1999/468/EC the Commission recalls its statement concerning Article 5 of Decision 1999/468/EC, according to which the Commission, in order to find a balanced solution, will act in such a way as to avoid going against any predominant position which might emerge within the Council against the appropriateness of an implementing measure (cf. OJ C 203, 17.7.1999, p. 1).

The Council notes the intention of the Commission to submit to the programme Committee, established under the specific Research programme "Integrating and strengthening the ERA", procedural modalities concerning research involving the use of human embryos and human embryonic stem cells, in accordance with Article 6, paragraph 3, first indent.

The Council further notes the intention of the Commission to present to Council and Parliament in Spring 2003 a report on human embryonic stem cell research which will form the basis for discussion at an inter-institutional seminar on bioethics.

Taking into account the seminar's outcome, the Commission will submit, based on article 166 (4) of the Treaty, a proposal establishing further guidelines on principles for deciding on the Community funding of research projects involving the use of human embryos and human embryonic stem cells.

The Council and the Commission will do their utmost, counting on the support of the European Parliament, to complete the legislative procedure as early as possible and at the latest in December 2003.

The Council and the Commission expect that the above mentioned seminar will contribute, as suggested by the European Parliament, to a Europe-wide and well-structured discussion process on the ethical issues of modern biotechnology, particularly on human embryonic stem cells, in order to enhance public understanding.

The Council and the Commission note that the ethical acceptability of various research fields is related to the diversity among Member States, and is governed by national law in accordance with the principle of subsidiarity. Moreover, the

Commission notes that research using human embryos and human embryonic stem cells is allowed in several Member States, but not in others.”

Annex C :

List of Groups of target countries for specific measures in support of International Co-operation

(last updated : December 2002)

DEVELOPING COUNTRIES

(ACP, ASIA,

LATIN AMERICA)

- ACP

AFRICAN

- Angola
- Benin
- Botswana
- Burkina-Faso
- Burundi
- Cameroon
- Cape Verde
- Central African Republic
- Chad
- Comoros
- Congo (Republic of)
- Congo (Democratic Rep. of)
- Côte d'Ivoire
- Djibouti
- Equatorial Guinea
- Eritrea
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Kenya
- Lesotho
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritania
- Mauritius
- Mozambique
- Namibia
- Niger
- Nigeria
- Rwanda
- Sao Tome and Principe
- Senegal
- Seychelles
- Sierra Leone
- Somalia
- South Africa
- Sudan
- Swaziland
- Tanzania

- Togo
- Uganda
- Zambia
- Zimbabwe

CARIBBEAN

- Antigua and Barbuda
- Bahamas
- Barbados
- Belize*
- Cuba*
- Dominica
- Dominican Rep.
- Grenada
- Guyana*
- Haiti
- Jamaica
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and Grenadines
- Suriname*
- Trinidad and Tobago

PACIFIC

- Cook Islands
- Fiji
- Kiribati
- Marshall Islands
- Micronesia, Federal States of
- Nauru
- Niue
- Palau
- Papua New Guinea
- Solomon Islands
- Tonga
- Tuvalu
- Vanuatu
- Western Samoa

- ASIA

- Bangladesh
- Bhutan
- Brunei
- Cambodia
- China**

- India**
- Indonesia
- Lao (People's Democratic Rep. of)
- Malaysia
- Maldives
- Mongolia
- Nepal
- Pakistan
- Philippines
- Singapore
- Sri Lanka
- Thailand
- Vietnam

- LATIN AMERICA

- Argentina
- Bolivia
- Brazil
- Chile
- Colombia
- Costa Rica
- Ecuador
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama
- Paraguay
- Peru
- Uruguay
- Venezuela

MEDITERRANEAN PARTNER COUNTRIES

- Algeria
- Cyprus¹
- Egypt
- Israel¹
- Jordan
- Lebanon
- Malta¹
- Morocco
- Syrian Arab Rep.
- Tunisia
- Turkey¹

- West Bank and Gaza Strip

RUSSIA AND THE OTHER NEW INDEPENDENT STATES

- Armenia
- Azerbaijan
- Belarus
- Georgia
- Kazakhstan
- Kyrgyzstan
- Moldova
- Russia **
- Tajikistan
- Turkmenistan
- Ukraine
- Uzbekistan

WESTERN BALKAN COUNTRIES

- Albania
- Bosnia-Herzegovina
- Croatia
- Federal Republic of Yugoslavia
- Former Yugoslav Republic of Macedonia (FYROM)

*For participation in the « Specific measures in support of international co-operation », these countries can be considered both in ACP and Latin American region

** For participation in the « Specific measures in support of international co-operation » China, India and Russia may be considered individually as a region, however, in this case, at least 3 different partners from different provinces or states within China, India or Russia are necessary

¹ When these countries will become associated to the 6th framework programme, that status will take precedence