



6th Framework Programme
Anticipating scientific and technological needs

NEST

New and Emerging Science and Technology

REFERENCE DOCUMENT ON

INSIGHT PROJECTS

27 February 2003

This is a reference document of DG Research. Before preparing proposals for NEST, the Guide for Proposers, and all other relevant documents which constitute the Information Package for the call, should be consulted.

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Reference document on INSIGHT projects

1 INTRODUCTION

The New and Emerging Science and Technology (NEST) activity falls within the FP6 specific programme “Integrating and Strengthening the European Research Area”.

INSIGHT projects are intended to be one means of implementing this activity. They respond to the requirement in the specific programme that the NEST activity will conduct :

... NEST mandate for INSIGHT projects ...

Research to assess rapidly new discoveries, or newly observed phenomena, which may indicate emerging risks or problems of high importance to European society, and identify appropriate responses to them.

This reference document addresses the various elements of implementation of INSIGHT projects, indicating the position that NEST proposes to take in each area.

2 OBJECTIVES OF INSIGHT PROJECTS AND EXPECTED BENEFITS

... anticipatory function of INSIGHT projects ...

INSIGHT projects have an anticipatory function. They are scientific investigations, designed to provide early identification and clarification of phenomena that could lead to potential problems and risks of concern to society.

INSIGHT projects follow the basic principles of the NEST activity, giving researchers the freedom to develop their ideas within the broadest possible limits. But, at the same time, they must provide a real added value for decision making. They should therefore aim to develop scientific understanding that enables concerned actors (eg policy makers, regulatory authorities, industry, groups representing civil society) to frame and inform strategic choices about necessary future action.

This could be achieved, for example, by means of:

... possible specific objectives ...

- Analysis of the specific features of a new discovery/newly observed phenomenon in question, through the rigorous application of existing methodologies and techniques.
- Development of new and innovative methodological approaches and tools, to enable robust decisions to be reached on the appropriate responses to such phenomena, for example in the face of significant uncertainties or areas of ignorance.
- Development of means to pool and/or compare understanding and

scientific assessments and/or reconcile different (eg national) positions and perspectives on topics of interest to different organisations and interest groups in Europe.

*... benefits of
INSIGHT
projects...*

INSIGHT projects should therefore be of benefit to various groups, including the Commission, national government departments and agencies and other concerned actors, charged with addressing public safety and risk, helping them to identify “early signals” of potential risks and hazards and make strategic judgements.

INSIGHT projects could also help to develop Europe’s institutional capacity (within the Commission and national bodies and amongst other relevant organisations and interest groups) to identify and manage the implications of uncertainty and ignorance, and address issues of concern, for example by identifying ways in which technological and policy-making systems could become more resilient, robust and adaptable.

3 PROJECT CHARACTERISTICS

3.1 Possible areas of action

INSIGHT projects may in principle address topics in any field of science and technology as long as these do not naturally fall within other areas of FP6 (in particular the thematic priorities).

*... What areas of
research might
potentially be
covered by
INSIGHT projects?
...*

The spectrum of possible subject matter is thus in principle rather broad. To provide guidance on the possible scope of project proposals, the following interpretations are given for key concepts cited in the NEST mandate for INSIGHT projects (see section 1 above).

Risk or problems of high importance to European society: high potential for causing a significant reduction in the quality of life for Europeans as a whole, or specific social groups in Europe. Quality of life would encompass circumstances and prospects for good physical and mental health, economic well being, social harmony, and environmental quality.

Discovery or phenomenon: these terms are interpreted in the context of human interaction with the natural world and with technological developments. The following potential “triggers” for INSIGHT actions could be envisaged. (Note that the examples are purely hypothetical – they do not indicate preferred areas or areas of particular concern.) :

... Examples ...

- *Discoveries associated with a change in the state of the natural world, or our understanding of the natural world* (e.g. a new pathogen; a new environmental contaminant or a new exposure pathway for an existing contaminant for humans or animals)
- *Phenomena resulting from new scientific or technological developments and their application* (e.g. a newly-observed problem arising from a medical intervention or medical practice; a means by

which communications systems or machinery could inadvertently or deliberately be caused to suffer major failures; a new method of financial market intervention with the potential to cause systemic problems; a phenomenon in human development or genetics that indicates serious potential ethical problems in the future)

- *Phenomena relating to changes in economic and/or societal conditions in the context of scientific and technological developments (e.g. uptake of a new agricultural practice with potential for damaging consequences on international trade relations; appearance of a new type of crime that is difficult to detect or combat)*

... importance of novelty ...

New or newly observed: the anticipatory role of INSIGHT projects means they must address issues at a very early stage, on which there has been very limited prior analysis and research, and where understanding is limited. They will not address topics within the context of ongoing “risk debates” where there is perennial controversy over areas of uncertainty or the interpretation of data. Nor will they address topics which can be characterised as “sub-topics” in well-established broader frames of risk assessment (e.g. climate change). The only exceptions to this are where there is a convincing case for work on innovative methodology that has the potential to make a major change to the state of understanding of such issues.

3.2 Characteristics of INSIGHT projects

...projects should aim to assist strategic decision making...

INSIGHT projects are exploratory, reflecting the basic principles of the NEST activity. This does not mean that they are open-ended or have undefined objectives. On the contrary, proposals will need to demonstrate that the proposed research has a high potential impact and aims to arrive at results of significant value to strategic decision making. They might for example aim at reducing or eliminating key uncertainties and areas of ignorance, or they may be orientated towards developing viable and robust means to limit the practical consequences of uncertainty, or both.

Within these constraints, the research model is responsive to opportunities and needs.

... different activities...

Projects might in different cases, for example, involve laboratory or field experiments to clarify the scientific basis of a phenomenon, modelling of different possible mechanisms and impacts, analysis of systemic and societal vulnerabilities, and/or the development of response strategies.

...questioning orthodoxy ...

They may also involve questioning orthodoxy and the development of new analytical, methodological and technical approaches for assessing and responding to problems and risks, including in particular interdisciplinary and systemic issues.

...critical examination of assumptions ...

The projects could also be ‘reflexive’ in the sense that they might critically examine some of the assumptions underlying their own investigations and the interpretation of their findings. They might also contribute by re-framing some of the questions, or by providing answers from a novel perspective.

... inter-disciplinary approaches ...

There are very good reasons for assuming that in most cases, INSIGHT projects will require a multi-disciplinary team and an inter-disciplinary approach. They may also involve partnership with diverse affiliations (see section 5 below). They could in principle cross the different areas of science and technology, and indeed social sciences. It may, however, also be the case that a few of them could usefully draw predominately or even entirely from a single discipline such as, for example, analytical chemistry, epidemiology or the development of software for the analysis of geographical data information systems.

3.3 What INSIGHT projects are not

The following types of research will not be funded as INSIGHT projects¹:

... examples of research that will not be funded under INSIGHT projects ...

- *Policy evaluation studies*, i.e. research intended to evaluate the impacts of existing policies or prospective policy options, unless it relates to a novel phenomenon that is independent of the policy itself.
- *Technology foresight studies*, i.e. research focused on exploring the future avenues of technology development and technology uptake; or *technology assessment studies*, i.e. research intended to explore a broad range of socio-economic impacts associated with the development or implementation of a technology or system.
- Research that legitimately falls with the scope of the *thematic priorities* under the sixth framework programme (including in the framework of integrated projects or networks of excellence). Proposals will be systematically checked against the work programme and research portfolio of the thematic priorities.
- Research addressing phenomena that do not involve important novel aspects, such as topics in the context of ongoing “risk debates”, or which is *open-ended*, without clearly-articulated strategic benefits, or research directed towards investigation of *hypothetical phenomena* or predictions, with no plausible or convincing evidence as to their real or potential existence.

¹ It should be noted, however, that some of these categories of research may in certain cases be funded under the Support Actions part of the NEST activity, where they contribute in a substantial manner to the implementation of NEST and its various constituent parts.

3.4 Instruments

Two of the FP6 instruments could potentially be used for INSIGHT projects, depending on the nature of the research requirement².

... traditional shared cost research ...

Specific targeted research projects. The shared cost research contract is expected to be the main instrument for the INSIGHT projects. It is envisaged that these projects will be relatively small in scale (compared to other actions in the framework programme) and orientated towards the production of robust outputs in a relatively short period of time (normally a maximum of 2 years duration with solid interim results after approx. 1 year). As such the maximum Commission contribution will not normally exceed EUR 800,000.

...co-ordination of research carried out, eg. on a national basis...

Co-ordination actions. Co-ordination actions could be envisaged in cases where pooling or consolidation of nationally funded research initiatives is needed. Co-ordination actions, which do not provide funding for the research proper, would also normally involve a maximum of two years and a maximum Commission contribution of EUR 400,000.

4 PROPOSAL SUBMISSION AND EVALUATION MECHANISM

Submission and pre-registration

Submission of INSIGHT proposals, in response to the relevant Call for Proposals, follows the standard procedures for proposal submission under the 6th Framework Programme. Pre-registration of proposals is strongly recommended, in order for the Commission to anticipate the required range of expertise for the evaluation.

Specialist and generalist expertise

NEST will use a combination of specialist referees, and a panel of experts. The panel may include experts with a broad range of affiliation and background, including for example representatives from government departments or regulatory agencies, policy makers, as well as “civil society” more broadly, in the sense of an “extended peer review”.

The criteria

The criteria for evaluation are published in the Call for Proposals, and reproduced in Annex 1. While the six blocks are standard to the 6th Framework Programme, the individual criteria and the thresholds are specific to NEST and to the respective instrument.

The different evaluation procedures for INSIGHT Specific Targeted Research Projects (STREPs) and INSIGHT Co-ordination Actions (CAs) are described in the following sections.

A two-stage procedure

4.1 2-stage procedure for INSIGHT STREPs

A two-stage procedure allows proposers to receive early feedback, before

² Further information on these instruments is available on the FP6 web-site – see section 6 below.

	they invest significant resources into proposals that would, ultimately, be unsuccessful.
<i>OUTLINE proposals</i>	Proposals for INSIGHT Specific Targeted Research Projects (STREPs) are submitted as OUTLINE proposals, with a maximum length of 5 pages. The OUTLINE proposals should be anonymous, i.e. the names of researchers or their institutions should not be revealed, other than in the administrative part. Independent experts will evaluate all eligible proposals, against the criteria blocks 1, 2 and 3.
<i>FULL proposals</i>	All proposers are informed of the results of the evaluation. Successful proposers are invited to submit a FULL proposal. The deadline for FULL proposal submission will be specified in the invitation. Independent experts will evaluate the FULL proposals against the complete set of criteria. The Commission may subsequently start negotiation of the successful FULL proposals.
	4.2 1-stage procedure for INSIGHT CAs
<i>A one-stage procedure</i>	Proposals for INSIGHT Co-ordination Actions (CAs) will be evaluated in a single stage procedure. Independent experts will evaluate these proposals against the complete set of criteria. The Commission may subsequently start negotiation of the successful proposals.

5 MANAGEMENT OF INSIGHT PROJECTS AND DISSEMINATION OF RESULTS

<i>... actors and stakeholders in INSIGHT projects</i>	<p>It is expected that, besides the research community, INSIGHT projects may be of interest to a range of other actors. These might include, for example, government departments and agencies responsible for regulating public safety/risk management (food, environment, health regulators, drug approval ...); industrial laboratories and corporate policy/compliance departments; policy makers in various fields, as well as “civil society” more broadly.</p> <p>In at least some cases, INSIGHT projects may also address sensitive questions of public concern, where the views of different interest groups could diverge. Appropriate and effective interdisciplinary methodologies will also be required, in many cases.</p> <p>These factors will need to be taken fully into account in the design of projects. They may have important implications for problem conceptualisation and project management, especially given the relatively short duration of INSIGHT projects. It will, in particular, be necessary to ensure that strategies for dissemination and utilisation of the results arising from projects are well thought through from the outset. For example, effective dissemination could require the involvement of different stakeholder interests at relevant stages during the course of the research itself.</p>
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6 KEY DATES AND CONTACTS**Timetable:**

... timetable for proposals ...

- The call for proposals is published on 27 February 2003.
- Closure dates for the receipt of *outline* proposals for STREPS and proposals for CAs will be 14 May and 22 October 2003.

Additional information:

... contacts ...

NEST web-site: <http://www.cordis.lu/nest>

6th Framework programme : <http://www.cordis.lu/FP6/>

Contact point: for further information and comment on this reference document : rtd-nest@cec.eu.int

Annex 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

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 are 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