

INTRODUCTION TO THE INSTRUMENTS AVAILABLE FOR IMPLEMENTING THE FP6 PRIORITY THEMATIC AREAS

Speaking Notes

These speaking notes are being widely circulated in order to generate an open discussion during these early stages in the design of the instruments available for implementing the priority themes of the Sixth Framework Programme.

Further information on the individual instruments is available from the DG Research website:

<http://europa.eu.int/comm/research/nfp/networks-ip.html>

Comments are welcome and may be sent by e-mail to Colette Renier:

colette.renier@cec.eu.int

**Unit B.2
DG Research
European Commission**

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Standard Disclaimer

These speaking notes express solely the current views of unit RTD.B.2 of the European Commission’s services. Readers should not regard these views as a statement of the official position of the European Commission nor indeed of its Directorate-General for Research.

Instruments for implementing the priority themes of the Sixth Framework Programme

The purpose of this paper is to provide the reader with a brief introduction to current thinking on the design of the instruments available for implementing the priority themes of the Sixth Framework Programme (FP6). It concentrates on the main features of the instruments. It is not intended to be a comprehensive document.

For further details on the instruments, readers are referred to the following website: <http://europa.eu.int/comm/research/nfp/networks-ip.html>

A wider range of better differentiated instruments

The following instruments will be available to implement the priority themes:

- integrated projects;
- networks of excellence;
- Article 169 (for the joint implementation of national programmes);
- as a “stairway of excellence”
 - specific targeted research projects,
 - coordination actions;
- specific support actions.

This is a somewhat wider range of instruments than was available for the key actions of the Fifth Framework Programme (FP5), since it now contains a mix of the “new” instruments driven by the concepts of the European Research Area (ERA) and of the more “traditional” instruments similar to those in FP5.

These “new” instruments, notably the integrated projects and the networks of excellence, are characterised by their capacity to mobilise the critical mass of expertise needed to achieve ambitious objectives. They are also characterised by the structuring and integrating effects that they will have on the fabric of European research.

As well as being a wider range of instruments, this paper aims to show that they are also a much better differentiated set. Each instrument has its own distinct character and its own distinct role to play in implementing the priority themes.

Note: This paper is confined to the use of these instruments within the priority themes. It should be noted however that the instruments do also have roles to play elsewhere in the Framework Programme.

Principles guiding their design

Before examining each of these instruments in turn, it is worth reflecting on the principles that are guiding the European Commission in their design.

Simplification and streamlining: These principles are important in helping to minimise the overheads of all concerned at all stages of the process, whether applicants, contractors or the Commission itself. Applying these principles will also help to speed up procedures, especially the time taken from evaluation to contract.

Flexibility and adaptability: From the point of view of programme management, the instruments need to be designed to be applicable throughout the priority themes – in other words they should be applicable equally to the social sciences or to engineering, as well as to basic research or applied research.

Furthermore, from the point of view of the contractors, instruments are needed that better enable projects to adapt to changing circumstances, for example because the research has evolved or because the partnership needs to be modified.

Increased management autonomy: This ability of projects to adapt to changing circumstances is part of a general shift towards increased autonomy for the consortia. The aim is to give consortia more freedom in managing their projects, especially by eliminating all unnecessary micromanagement from the projects. Indeed, the follow-up of projects by the Commission services will move from the detailed monitoring of inputs to a more strategic monitoring of outputs.

While preserving public accountability: In designing these instruments, the Commission will try to push these principles to the limit. However, it must be remembered that we are dealing with public money and that, as a consequence, there are indeed limits set by the need to preserve public accountability and to protect the interests of the European Community.

Integrated projects

Purpose: The integrated project is being designed to generate the knowledge required to implement the priority themes by integrating the critical mass of activities and resources needed to achieve ambitious clearly defined scientific and technological objectives. Each integrated project should be aimed either at increasing the Europe's competitiveness or at addressing major societal needs.

The integrated project is therefore an instrument to support objective-driven research, where the primary deliverable is new knowledge. Of course, by mobilising a critical mass of resources, integrated projects can also be expected to have a structuring effect on the fabric of European research.

Activities: Each project must contain a research component and may contain technological development and demonstration components, as appropriate, as well as a training component. A project may be at any point in the research spectrum. A single project may indeed span large parts of the spectrum, i.e. from basic to applied research.

The effective management of knowledge, and its dissemination and transfer, will also be an essential feature of each integrated project as well as, where relevant, the analysis and assessment of the technologies developed and of the factors relating to their exploitation. Projects may also include support for the take-up of new technologies, in particular by SMEs.

Scale of the critical mass: Critical mass will differ widely in scale from field to field, for example from the social sciences to aeronautics research, and possibly also from topic to topic inside a field. The over-riding criterion for judging critical mass will simply therefore be the qualitative one that an integrated project must have ambitious objectives and must mobilise whatever activities and resources are needed to achieve those objectives.

The value of the activities integrated by a project are expected to range up to many tens of millions of euros. However, there will be no minimum threshold, provided of course that the necessary ambition and critical mass are there.

Size of partnership: There must be a minimum of three participants from three different countries. However, in practice, there are likely to be substantially more participants and probably, on average, somewhat more than the figure of nine seen in the RTD projects of FP5.

Duration: Integrated projects are expected to have a duration of typically three to five years. However, there will be no maximum, so a longer duration could be accepted if it is necessary to deliver the objectives of a project.

An illustrative financial regime: The financial regime for integrated projects will probably be built on the following concepts:

- a “grant to the budget”, acting as a ceiling for the support of the Community;
- where the support will be paid as a contribution to actual costs;
- according to maximum rates of support specified in the contract for different types of activity within the project.

The grant to the budget would be negotiated on the basis of (a) the estimated actual costs of carrying out the various activities of the project and (b) the maximum rates of Community support for each activity. The amount of the grant would be fixed in the contract.

Such a regime would have many similarities to the current financial regime for RTD projects in FP5.

Cost methodologies: One possibility would be to carry forward into the integrated projects of FP6 all three cost methodologies now being used for RTD projects in FP5, namely:

- **FC:** full actual direct costs plus full actual indirect costs;
- **FF:** full actual direct costs plus a flat rate for overheads (*in FP5, of 80% of personnel costs*);
- **AC:** direct costs that are additional to the recurring costs of the participant plus a flat rate for overheads (*in FP5, of 20% of the additional costs, excluding subcontracts*).

The AC methodology would apply to those participants, particularly public bodies, whose accounting system does not enable them to identify their full direct costs.

Possible simplifications to this set of cost methodologies are being examined.

Costs chargeable to the contract: To be chargeable to the contract, costs would need simultaneously to fulfil the following conditions:

- be actual, economic and necessary for the project;
- be incurred during the duration of the project;
- be determined in accordance with the normal accounting conventions of each participant, with however the provision that costs shall be in accordance with the principles of historic cost accounting;
- be recorded in the accounts of the participants or, when provided for in the contract, in the accounts of third parties;
- exclude indirect taxes, duties, interest, contribution to profit....

In addition, participants would be expected to adhere to financial guidelines published by the Commission. It should be noted that there will be no pre-defined cost categories as there were for RTD projects in FP5. For the integrated projects, each participant will simply use its own accounting definitions.

Maximum rates of Community support: For both of the full cost methodologies, the maximum rates of Community contribution to a participant's costs would be:

- 50% for the research and technological development activities in the project;
- 35% for any demonstration activities; and
- 100% (*of direct costs only*) for certain project management and training activities.

AC participants would continue to be supported at up to 100% of additional costs for all components of the project.

Scale of the Community support: Community support is most likely to fall in the range of several millions of euros to several tens of millions of euros.

Payment of the Community contributions: Annually, the consortium would provide the Commission with a summary statement of costs for each participant certified by an independent auditor (or competent public official in the case of a public body). This would be accompanied by an annual progress report and a management-level justification of costs, which together would provide the basis for the Commission's approval of the payment for that year.

Proposals: Calls for proposals are likely to be preceded by invitations to submit expressions of interest to determine topics for the subsequent call for project proposals. This will help focus the calls for proposals, thereby containing over-subscription. It will also assist in proposal-making and consortium-building.

Proposals themselves will be simplified, in particular to reflect the evolutionary nature of an integrated project.

Evaluation system: Evaluation will be by peer review. However, the system used for RTD projects in FP5 will need to be strengthened to reflect the more ambitious nature of the integrated projects.

Possibilities for strengthening the peer review system include: the more systematic use of remote assessment prior to panel meetings; and hearings of

applicants by the panel, in particular to allow applicants to answer questions not covered in the proposal itself.

When necessary, proposals will also be subjected to an ethical review.

Specific evaluation criteria: Successful proposals for integrated projects will need to demonstrate:

- the excellence and relevance of the research proposed;
- the ambition of the project's objectives, in particular in relation to its potential for reinforcing competitiveness or solving societal problems;
- the ability of the consortium to put together the critical mass of activities and resources needed to achieve these ambitious objectives;
- the quality of the plan for the use and dissemination of knowledge and, when relevant, the potential for promoting innovation and the ability to manage knowledge;
- the ability to successfully carry out the project, particularly in terms of its organisation and management.

The complete set of evaluation criteria will be described in the relevant information package.

Evolution of the implementation plan: Before the start of the project, the consortium will have agreed with the Commission an outline implementation plan for the full duration of the project together with a detailed plan for its first 18 months. This detailed plan and its associated budget will have been the basis for the initial advance payment for that period.

Then, each year, the detailed 18-month plan will roll forward (subject, when necessary, to ethical review) and so will the advance payment. That way, the project should never be operating without an approved detailed plan, nor without a satisfactory advance payment.

Evolution of the consortium: The consortium may itself decide to take in new participants as the project evolves, though without additional financing from the Community. The contract will specify when the addition of new participants must involve a competitive call. These calls will be organised by the consortium in accordance with guidelines set out in the contract. All costs associated with such calls will be chargeable to the contract.

Output monitoring by the Commission: The Commission will need to develop a robust scheme for the output monitoring of integrated projects. Such a scheme might consist of:

- **annual reviews:** coinciding with the annual cycle of reporting and planning;

- **a mid-term review:** which would trigger a go/no-go decision on whether to continue the project to its foreseen end;
- **an end-of-term review:** primarily to assess the impact of the project on enhancing the Community's competitiveness or on addressing major societal needs.

The Commission will probably involve independent experts in all stages of this monitoring scheme.

Networks of Excellence

Purpose: The network of excellence is being designed to strengthen excellence on a particular research topic by networking together the critical mass of resources and expertise needed to be world force in that topic. This expertise will be networked around a joint programme of activity aimed primarily at creating a progressive and lasting integration of the research activities of the network partners while, of course, at the same time advancing knowledge on the topic.

It is important that these networks do not act as “closed clubs” and strengthen excellence only within the network. Each network will, as a consequence, also be given a mission to spread excellence beyond the boundaries of its partnership.

The network of excellence is therefore an instrument designed primarily to address the fragmentation of European research on a particular research topic, where the main deliverable should be a durable restructuring and reshaping of the way that research is carried out on that topic. Of course, by investing money in a partnership of excellent teams, the networks can also be expected to generate knowledge, though this is not their main purpose.

What constitutes a joint programme of activity? A joint programme of activity (JPA) will consist of at least three components:

- first, a programme of **jointly executed research**, possibly of a long-term character;
- second, a set of **integrating activities** designed to help bring about the restructuring and reshaping of how the partners carry out research on the topic. This will certainly include the coordinated programming of the partners’ activities in research, training and support services. It may also include the creation of research facilities and research platforms for common use, staff mobility and exchanges, the relocation of staff, perhaps of whole teams and equipment, and the reinforcement of electronic communication networks to support interactive working between the teams involved;
- third, a set of **activities designed to spread excellence**, for example, dissemination and communication activities (including raising public awareness and understanding of science), the training of researchers especially from outside the network and, more generally, networking activities to help transfer knowledge to teams external to the network.

All the network’s activities should be carried out within a unified management structure.

Scale of the critical mass: Each network of excellence is expected to have ambitious goals and to assemble the critical mass of resources and expertise needed to achieve those goals. It is not possible to fix a value for this critical mass as it will vary from topic to topic. However, some of the larger networks can be expected to involve several hundreds of researchers. Of course, networks may be of a much more limited size, but the necessary ambition and critical mass must be there.

Duration of the Community support: The duration of the Community support is another important aspect of critical mass, since a network must be supported long enough for its integration to take on a lasting nature. Support, in many cases, may therefore be needed for five years and perhaps more.

Size of the partnership: There must be a minimum of three participants from three countries. However, as an indication, there should generally not be less than six participants. A minimum number may be specified in the relevant call for proposals.

An illustrative financial regime: A possible financial regime for networks of excellence could be built on the following concepts of:

- a “fixed grant for integration”;
- calculated solely on the basis of (a) the number of researchers engaged in the network, (b) a per capita grant, and (c) the duration of Community support;
- disbursed in annual instalments, with payment depending on the network’s progress towards achieving a lasting integration (i.e. a results-based payments regime);
- without tracking the use of the Community money itself.

The grant would be intended to act as **an incentive** to overcome the barriers to a lasting integration of the activities of the partners on the topic that is the subject of the network. These barriers are, of course, not only organisational and financial, but also human and cultural.

The consortium will be free to distribute the grant as it wishes between the partners and between the activities covered by the JPA.

Calculation of the grant: In such a financial regime, the grant could be calculated on the basis of an amount in euros for each researcher engaged on activities within the frame of the network’s JPA. The amount would be specified in the relevant call for proposals. The figure would have been calculated to ensure that it does not exceed one-quarter of the value of the capacities and resources being integrated per researcher.

By way of illustration, the average annual grant to a network could vary with the number of researchers in the following manner:

50 researchers	€1 million/year
100 researchers	€2 million/year
150 researchers	€3 million/year
250 researchers	€4 million/year
500 researchers and above	€5 million/year

The grant for an intermediate number of researchers would be calculated by linear interpolation. In this illustration, therefore, a network of 200 researchers being supported over 5 years would be granted a fixed amount totalling €17.5 million.

These amounts have been estimated to be sufficient to overcome the various barriers to integration on the one hand, while avoiding the risk of creating dependence on financial support from the Community on the other. Any such dependence would prejudice the lasting nature of the integration, which is of course the Community's main purpose for supporting a network.

Calculating the number of researchers: The “number of researchers engaged on activities within the frame of the JPA” could be understood as follows:

- by “researcher” is meant research staff either with a PhD or equivalent or with a minimum of four years research experience following their first degree;
- a “researcher” must be either an employee of a participant or working under the direct management authority of a participant in the frame of a formal agreement between the participant and that researcher's employer;
- by “number of researchers” is meant a head-count of those “researchers” that the participants intend to engage on activities within the frame of the JPA should the proposal be successful and that are identifiable at the time of the deadline for the relevant call for proposals.

Disbursement of the grant: Each year, the Commission would make an advance payment equal to the average annual grant, though perhaps with the qualification that disbursements should reduce towards the end of the project as a means of minimising the risk of creating dependence. For example:

- for the final twelve months of the contract, the advance payment could be only one-half of the average annual grant;
- this missing one-half of the average annual grant could then be paid in any earlier year at the choice of the contractors (to reflect need);
- the agreed payment schedule would need to be fixed in the contract.

At the end of each year, the advance would be considered to be a full and final disbursement for that year (subject of course to ex-post audits) provided the following conditions are fulfilled:

- that the network has made satisfactory progress towards achieving a lasting integration of the partners' activities, as judged by the annual review carried out by the Commission services possibly with the help of independent experts;
- that the number of researchers engaged on activities within the frame of the JPA during that year is at least the number agreed initially to calculate the grant.

The advance payment for the following year would be paid once this process is complete and once the rolling detailed JPA for the next period has been agreed.

Proposals: Calls for proposals are likely to be preceded by invitations to submit expressions of interest to determine topics for the subsequent call for network proposals. This will help focus the calls for proposals, thereby containing over-subscription and also assisting in proposal-making and partnership-building.

Proposals themselves will be simplified, in particular to reflect the evolutionary nature of the networks.

Because of the importance of an institutional commitment from the participating organisations to both a meaningful and a durable integration of their research activities on the topic of the network, applicants may wish to include appropriate declarations of intent from their organisations (and perhaps when relevant from funding or other policy-making authorities).

Evaluation system: Evaluation will be by peer review. However, the system used for RTD projects in FP5 will need to be strengthened to reflect the more complex goals of the networks of excellence. Possibilities for strengthening the peer review system include: the more systematic use of remote assessment prior to panel meetings; and hearings of applicants by the panel, in particular to allow the applicants to answer questions not covered in the proposal itself.

When necessary, proposals may also be subjected to ethical review.

Specific evaluation criteria: Successful proposals for networks of excellence will need to demonstrate:

- the excellence and ambition of the network as a whole, of its joint programme of activities and of its individual members;

- the ability of the partnership to put together the critical mass of resources and expertise needed to achieve the network's objectives and to be a world force on the topic;
- the extent, the depth and the lasting nature of the integration proposed;
- the contribution of the network to spreading excellence;
- the ability of the partnership to successfully carry out the network, particularly in terms of its organisation, management and governance.

The complete set of evaluation criteria will be described in the relevant information package.

Evolution of the joint programme of activities: At the start of the project, the partnership will have agreed with the Commission an outline JPA for the full duration of the contract together with a detailed JPA for its first 18 months.

Then, each year, the detailed 18-month JPA (subject, when necessary, to ethical review) together with an associated advance payment will roll forward.

Evolution of the partnership: The partnership may itself decide to take in new partners as the network evolves, though without additional financing from the Community. The contract will specify when the addition of new partners must involve a competitive call. These calls will be organised by the partnership itself in accordance with guidelines set out in the contract. All costs associated with such calls will be chargeable to the contract.

Output monitoring by the Commission: Since, in effect, the networks have a results-based payments regime, the Commission will need to develop a robust scheme of output monitoring to act as a sound basis for the disbursement of the grant. Such a scheme might consist of:

- **annual reviews:** coinciding with the annual cycle of reporting and planning;
- **a mid-term review:** which would trigger a go/no-go decision on whether to continue the contract to its foreseen end;
- **an end-of-term review:** primarily to assess the impact of the network on strengthening and spreading scientific excellence in Europe.

The Commission will probably involve independent experts in all stages of this monitoring scheme.

Governance of the network: Because of the structuring nature of a network and the tendency therefore for the partners to become mutually dependent, the network must establish an effective system of governance that ensures the active engagement of its partner organisations at the policy-making level.

One way of achieving that would be for each network to establish a “governing

council”, consisting of high-level representatives of the partner organisations. It might be preferable also to include in the council a number of independent external experts.

The main role of such a governing council would be to oversee the integration of the partners’ activities and to ensure that, as well as strengthening excellence, the network will also fulfil its mission to spread excellence.

Article 169

“Article 169” is a reference to the article in the Treaty that enables the Community to participate in research programmes undertaken jointly by several Member States, including participation in the structures created for the execution of those programmes. States associated to the Framework Programme may also take part in these arrangements.

Article 169 is not strictly a “new” instrument in that it was available to be used in previous framework programmes. However, to date, no use has been made of this article.

In terms of the European Research Area and, in particular, in terms of the need to help integrate and structure research in Europe, Article 169 is potentially a most powerful instrument. To illustrate that, whereas integrated projects and networks of excellence tend to integrate the activities of individual performers of research, Article 169 arrangements can integrate the activities of whole national programmes on a particular topic.

Each possible Article 169 arrangement requires a co-initiative between a number of Member States, possibly represented by their national programmes, and the Commission in order to generate a proposal. Formally, it is then only the Commission that can submit the proposal to co-decision by the Council of Ministers and the European Parliament. The decision-making procedure for each Article 169 arrangement is therefore the same as it is for the Framework Programme itself.

The Commission had suggested to replace this complex and lengthy procedure, where each Article 169 arrangement needs its own co-decision, by a single framework decision of the Council and Parliament that would have enabled individual Article 169 arrangements to have been decided at the level of the Commission. This suggestion has not been retained.

For these reasons, it has become clear, during the run-up to FP6, that it may be difficult to use Article 169 in large numbers during this framework programme and that its use will be restricted to research initiatives that are beyond the scope of the integrated projects or networks of excellence.

It should be noted, however, that the Council has invited the Commission to present a small number of “pilot” Article 169 proposals in early 2002. The Commission services are currently working on these pilots with the interested national programmes.

“Stairway of excellence”

The “stairway of excellence” – a term coined by the European Parliament – has been introduced to smooth the transition from the “traditional” instruments in FP5 to the “new” instruments in FP6 by supporting research activities of a more limited scope and ambition, particularly for smaller research actors, including SMEs, and for participants from the candidate countries.

The stairway consists itself of two instruments:

- **specific targeted research projects:** an evolved form of the shared-cost RTD projects and demonstration projects used in FP5;
- **coordination actions:** an evolved form of the concerted actions/thematic networks used in FP5.

In keeping with its transitional nature, the stairway may be used degressively as FP6 proceeds, though no decision will be taken on that until the Commission has arranged an independent evaluation in 2004 of the use of the instruments.

Specific support actions

Specific support actions are an evolved form of the accompanying measures used in FP5. They are intended to complement the implementation of the Framework Programme and may be used to help in preparations for future Community research policy activities.

Within the priority themes, specific support actions will support, for example, conferences, seminars, studies and analyses, working groups and expert groups, operational support and dissemination, information and communication activities, or a combination of these as appropriate.

Classification of the instruments

It is the Commission's intention to design a range of well-differentiated instruments, each with its own distinct role to play in implementing the priority themes. The following classification is meant to illustrate that:

Integrated projects

- **Main purpose:** to support the objective-driven research needed to generate the knowledge required to implement the priority themes;
- **Primary deliverable:** new knowledge;
- **Other deliverables:** because they mobilise the critical mass of expertise needed to achieve ambitious objectives, integrated projects can also be expected to have a structuring effect on the fabric of European research;
- **Scale of effort mobilised:** medium to high;
- **Community contribution:** from several millions to several tens of millions of euros;
- **Financial regime:** grant to the budget, paid as a contribution to actual costs.

Networks of excellence

- **Main purpose:** to address the fragmentation of European research;
- **Primary deliverable:** the restructuring and reshaping of the way research is carried out in Europe on a particular topic in order to strengthen excellence in that topic;
- **Other deliverables:** because they support the work of excellent research teams, networks of excellence will also generate new knowledge;
- **Scale of effort mobilised:** medium to high;
- **Community contribution:** from several millions to some tens of millions of euros;
- **Financial regime:** a fixed grant for integration, disbursed in annual instalments on the basis of progress towards achieving a lasting integration.

Article 169

- **Purpose:** to support the joint implementation of national research programmes;
- **Scale of effort mobilised:** high. Because of the heaviness of the procedures envisaged, Article 169 arrangements will be justified only for large-scale initiatives that are beyond the scope of IPs and NoEs;
- **Community contribution:** from some tens of millions of euros upwards.

Specific targeted research projects

- **Purpose:** to support research, technological development and demonstration activities of a more limited scope and ambition, particularly for smaller research actors and participants from candidate countries;
- **Deliverable:** new knowledge;
- **Scale of effort mobilised:** low-medium;
- **Community contribution:** from hundreds of thousands of euros to a few millions of euros;
- **Financial regime:** grant to the budget, paid as a contribution to actual costs.

Instruments to be used in priority

With such a wide range of distinct instruments available, calls for proposals will need to identify for each theme which instruments are to be used, which have priority and for what.

It has been agreed that, from the outset, integrated projects and networks of excellence will be the priority means of implementing those themes where it is already deemed appropriate. However, all themes will, at least initially, keep open the use of specific targeted research projects and coordination actions as a transitional measure.

Then in 2004, once there is practical experience of using the instruments, the Commission will organise an independent evaluation of their use. The result of the evaluation may lead to a subsequent adjustment in their relative weightings.