

PROVISIONS FOR IMPLEMENTING NETWORKS OF EXCELLENCE

Working document

This document is being widely circulated in order to generate an open discussion on the provisions for implementing networks of excellence in the Sixth Framework Programme.

It is available on the Research web-site:

<http://europa.eu.int/comm/research/fp6/networks-ip.html>

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Annexes

- **Annex I** Participation possibilities by country of the participant
- **Annex II** Elements to be included in the proposal

Other documents on issues related to networks of excellence, including joint and several liability, are available on the Research website: <http://europa.eu.int/comm/research/fp6/networks-ip.html>

Standard Disclaimer:

This document expresses 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.

This document is a practical guide to the networks of excellence of the Sixth Framework Programme. For this Fourth Edition, principles underpinning the implementation of this instrument have been decided by the legislative process concerning the Framework Programme and its Rules for Participation. However, a number of implementation modalities are still evolving. The document will, therefore, continue to be updated.

1. GENERAL ASPECTS

1.1. Purpose

Networks of excellence are designed to **strengthen scientific and technological excellence** on a particular research topic by **networking** together at European level the **critical mass** of resources and expertise needed to provide European leadership and to be a world force in that topic. This expertise will be networked around a joint programme of activities aimed principally at creating a **progressive and durable integration** of the research capacities of the network partners while, of course, at the same time advancing knowledge on the topic.

Networks of excellence are therefore an instrument designed primarily to **overcome the fragmentation of European research where the main deliverable consists of a durable structuring and shaping of the way that research in Europe is carried out on particular research topics.**

It is important that these networks do not act as “closed clubs”, concentrating only on strengthening the excellence of the partners inside the network. Each network will therefore also be given a mission to **spread excellence** beyond the boundaries of its partnership. Training will be an essential component of this mission.

Networks of excellence are to be used in implementing the priority thematic areas of the Sixth Framework Programme (FP 6). They may also be used, in duly justified cases, in the research areas supporting policies and anticipating scientific and technological needs (the so-called 8th priority), when the objective in question can be better achieved by these means.

1.2. Size and critical mass

Networks of excellence will be expected to have ambitious goals particularly in terms of providing European leadership and creating a world force. They must assemble the critical mass of resources and expertise needed to achieve those goals. It is not possible to fix in advance a minimum value for this critical mass, as it will vary from topic to topic. Calls for proposals may provide an indication of the critical mass required so as to ensure the achievement of the objectives on the topic considered.

It is expected that larger networks may involve hundreds of researchers. Others may be of a much more limited size, provided that they pursue ambitious goals and mobilise the critical mass needed to achieve these goals.

1.3. 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 up to five years and, in exceptional cases duly justified, perhaps more. In no case, however, will support be granted for more than seven years.

1.4. Indicators for integration

The main factors that will need to be examined by those assessing the quality of the integration in a network will include the following:

- the extent of mutual specialisation and mutual complementarity, particularly through the regular co-programming of the partners' activities, through the building up of strengths and the shrinking of weaknesses, and perhaps through the relocation of resources;

- the sharing and development for common use of research infrastructures, equipment, tools and platforms;
- the regular joint execution of research projects;
- interactive working between the partners using electronic communication systems;
- the joint management of the knowledge portfolio;
- joint programme of training for researchers and other key staff;
- a coherent management framework that encourages staff mobility, staff exchanges, the interoperability of data and other systems, common approaches to science and society issues and gender equality in research.

1.5. Participants

Networks of excellence must involve at least three legal entities from three different Member States or Associated States, of which at least two should be from Member States or Associated Candidate Countries. The relevant call for proposals may specify a higher minimum number of participants. It is expected that in practice the number of participants will be considerably higher than three and generally at least six.

Participants may be research entities such as: research centres, universities, enterprises, including SMEs, and research and technology organisations. Organisations having particular competence in terms of knowledge management, dissemination and transfer and organisations representing potential users and other stakeholders in the research may also take part, when their participation is relevant to the goals of the network. Individual researchers may not be participants in a network of excellence.

A European Economic Interest Grouping (EEIG) (or any legal entity established in a Member State or Associated State made up of independent legal entities) may be the sole participant of a network of excellence provided that its composition is in accordance with the conditions fixing the minimum number of participants.

Networks of excellence will be open to the participation of international organisations and entities from non-associated third countries. (*See Annex I*). In certain cases, their participation may be taken into account when calculating the grant that a network will receive.

2. THE JOINT PROGRAMME OF ACTIVITIES

The joint programme of activities (JPA) is the collective vehicle for achieving the objectives of the network. The JPA should consist of a coherent set of new or re-oriented activities that the participants undertake jointly. The JPA will have several components:

- a set of **integrating activities** aimed at bringing about the structuring and shaping of how the participants carry out research on the topic considered;
- a programme of **jointly executed research** to support the network's goals;
- a set of activities designed to **spread excellence**, an essential element of which will be a joint programme of training for researchers and other key staff;

All the network's activities should be carried out within a **coherent management framework**.

2.1. Integrating activities

These activities are those that are directly targeted at the creation of a strong and lasting integration of the activities of the participants in the network. They may include:

- co-ordinated programming and adaptation of the participants' activities in research in order to strengthen their complementarity and develop mutual specialisation;
- sharing common research tools and platforms;
- joint use of research infrastructures, and adaptation of the existing facilities with a view to their shared use;

- exchanges of personnel, opening of positions to researchers from other members of the network, staff mobility;
- relocation of staff, perhaps of whole teams and equipment;
- integrated management of knowledge and intellectual property;
- reinforcement of electronic information and communication networks to support interactive working between the teams involved.

2.2. A programme of jointly executed research

This consists of research activities jointly executed to support the network's goals, for example by developing new research tools and platforms for common use or by generating new knowledge to fill gaps in or to extend the collective knowledge portfolio.

2.3. Activities designed to spread excellence

An essential feature of the activities aimed at spreading excellence will be a joint programme for training researchers and other key staff, since the steady supply of skilled staff is indispensable to the sustainability of European excellence in the topic considered.

Other activities to spread excellence may include dissemination and communication activities, (including public awareness and understanding of science) and, more generally, networking activities to help transfer knowledge to teams external to the network.

Another way of spreading excellence could consist of promoting the exploitation of the results generated within the network. Accordingly, when appropriate, networks of excellence should include innovation-related activities concerning, for example, the protection of knowledge generated within the network, assessing the socio-economic impact of the knowledge and technologies generated and developing a plan for the use and dissemination of the knowledge. Take-up activities may be included, especially those targeted at SMEs.

2.4. Network management

Given the range of activities that will take place within the frame of the network and the potential for mutually reinforced effects, it will be important to create a coherent management framework. The following activities are included within the broad heading of network management:

- overall co-ordination of the joint activities of the network;
- communication with the Commission services and co-ordinating all reporting required under the contract;
- activities linked to consortium-level financial and accounting management and legal issues;
- co-ordination of the knowledge management activities and, when appropriate, other innovation-related activities;
- overseeing the promotion of gender equality within the network;
- overseeing science and society issues related to the topics of the network;
- supporting the work of the governing board and other network bodies.

3. FINANCIAL REGIME

Since a network of excellence has to bring about the durable integration of the research capacities of its participants and that implies change, the financial support from the Community must be targeted at overcoming the barriers to that change. These barriers are predominantly organisational, cultural and human. As such, the financing needed to overcome them cannot be quantified in normal accounting terms.

For those reasons, a regime for financial support based on the concept of an incentive to integration has been developed. Such a regime will be built on the following principles:

- a **grant for integration**, as a **fixed amount** to support the joint programme of activities;
- to be calculated taking into account (a) the degree of integration proposed by the consortium, (b) the number of researchers that all participants intend to integrate, (c) the characteristics of the field of research concerned and (d) the joint programme of activities;
- to be disbursed in **annual instalments**, with payment depending primarily on the network's progress towards achieving a durable integration and on condition that the costs incurred in implementing the joint programme of activities are greater than the grant itself.

The scale of a grant to the network must 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 durable nature of the integration, which is of course the Community's main purpose for supporting a network.

As the contract will not fix the distribution of the grant, either between the participants or between the activities of the joint programme of activities, the consortium will be free to distribute the grant as it wishes inside the network.

3.1. Calculation of the grant

Building the “degree of integration” and “the joint programme of activities” into the selection and financing of the networks

During the evaluation process of the proposals, only those proposals that reach a pre-determined threshold for the criterion, “degree of integration and the joint programme of activities” (see section 4.2.) will be considered for selection. This threshold will be set at a high level to ensure that only networks with the potential to deliver the required degree of integration will be selected.

Furthermore, as already mentioned, the grant awarded to the network can be paid to the consortium only to the extent that the payments are less than the costs incurred by the consortium in implementing the joint programme of activities.

Building the number of researchers into the financing of networks

Each call for proposals will contain a table that converts the headcount of the number of researchers that the participants intend to integrate into an annual average grant for the network as a whole. When determining this conversion table, the Commission will ensure that the grants to networks will not exceed 25 % of the value of the capacity and resources proposed for integration (when taking one network with another).

Building the characteristics of the field of research concerned into the financing of networks

In order to take account of the characteristics of the field of research concerned, the table in each call for proposals that converts headcount into the annual average grant will allow for the characteristics of research in the field concerned. In that way, the grant to a network will be calculated to reflect the cost-intensiveness of research in each field.

Calculating the number of researchers

The number of researchers that the participants intend to integrate will be calculated on the following basis:

- by “researcher” is meant research staff with at least four years of research experience or those in possession of a doctoral 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 the headcount of those “researchers” that (a) will constitute the research capacities of the participants within the network should the proposal be successful and that (b) are identifiable by name at the time of the deadline for the relevant call for proposals. This initial set of names must be auditable.

Illustrative calculation of the grant

By way of illustration, a call for proposals might contain a table such as the following to convert the overall number of researchers to be integrated, as defined above, into the average annual grant to a network:

50 researchers	€1 million/year
100 researchers	€2 million/year
150 researchers	€3 million/year
250 researchers	€4 million/year
500 researchers	€5 million/year
1000 researchers and above	€6million/year

The grant for an intermediate number of researchers would be calculated by linear interpolation.

In this illustration, a network of 200 researchers being supported over 5 years would be granted a fixed amount totalling €17.5 million, which the network would eventually receive provided, of course, that the costs incurred by the consortium in implementing the joint programme of activities turn out to be greater than the amount.

In view of the importance of training within a network, a supplementary bonus scheme is being considered in relation to any pre-doctoral scholars engaged on research activities within the frame of the network. The scheme would encompass all such junior researchers, provided that they are enrolled on a recognised course of doctoral studies (and provided that they have less than four years research experience, since otherwise they would qualify to be within the headcount of “researchers” as earlier defined).

3.2. Disbursement of the grant

The schedule for the disbursement of the grant will be agreed with the consortium during contract negotiations. There will be some flexibility in the rate of annual payments both to enable the rhythm disbursements to reflect the JPA’s needs for financial support and to enable the network to reduce disbursements towards the end of the project as a means of minimising the risk of creating dependence on support from the Community.

At the start of the contract, the Commission will make an advance payment for the first one-and-a-half years equivalent to 85 % of its foreseen grant for that 18-month period. Then, at the end of the first 12 months, its foreseen grant for those 12 months would be considered to be a full and final disbursement for the period, provided the following conditions are fulfilled (subject of course to ex-post audits):

- that the network is making satisfactory progress towards achieving its agreed objectives, in particular the durable integration of the research capacities of the participants, as judged by the annual review arranged by the Commission services with the assistance of independent experts;
- that costs of at least the value of that year’s disbursement were incurred in implementing the joint programme of activities. A statement to this effect will need to be certified by an independent auditor (or competent public official in the case of a public body or international organisation).

A supplementary advance for the following 18-months period would be paid once the process is complete and once the rolling detailed JPA for that 18-month period has been agreed. These subsequent advances could also be adjusted for any earlier underpayments compared with the originally foreseen rhythm of disbursements.

In these ways, a network will have the opportunity to enable the rate of disbursement of the grant to reflect its own needs for financial support.

It must be emphasised that, although the grant to the network will have been calculated largely on the basis of a head-count of “researchers” in the participants at the time of the proposal deadline, the **distribution of the grant** between the participants is for the consortium to decide and would therefore be expected to **reflect in some way the actual costs incurred** by different participants in implementing the JPA.

4. THE PROPOSAL STAGE AND THE NEGOTIATION PROCESS

4.1. Calls for proposals

Calls for proposals will be published in the Official Journal of the European Communities and widely disseminated by other means, including the Europa and Cordis web-sites and through the network of National Contact Points. A schedule of calls will be set out in the form of a “road map” in the work programme of the specific programme.

Invitations to submit expressions of interest

Invitations to submit expressions of interest may be issued prior to calls for project proposals. The first such invitation was published on 20 March 2002 with a deadline of 7 June 2002. The results of this exercise will be published www.cordis.lu/fp6/eoi-instruments in September 2002.

The expressions of interest phase will enable the Commission to better identify specific topics to be addressed by networks of excellence in the subsequent calls for proposals. This will enable the calls to be more tightly focused, hence reducing over-subscription. Expressions of interest will also help in proposal making and consortium building.

Expressions of interest should include a rationale for proposing the topic suitable for a network of excellence, a description of the potential expertise, skills and resources available to implement it and a demonstration of the readiness to submit a proposal to the subsequent call for proposals.

Where appropriate, the Commission may modify, merge or subdivide the topics submitted. However, any topic not submitted as an expression of interest risks being excluded from the subsequent call.

Network proposals

The information package relevant to the call for proposals will describe the content of a proposal. *Annex II* contains the elements applicants may be asked to include in their proposals.

In order to help simplify proposal making, the information provided should be only of sufficient “management-level” detail as to allow an objective evaluation of the scientific/technical merit of the proposal and of the resources that will be employed. Further details may then be requested as necessary, during the evaluation and negotiation phases.

Furthermore, applicants will be asked to provide only an outline JPA for the full duration of the support to the network. A detailed JPA will be required only for the first 18 months.

At the time they present their proposal, the participants should have collectively at least the potential resources (financial and material) needed to carry out the network, should it be supported by the Community.

Two-stage proposal submission

The Commission may also choose to arrange its calls for proposals in two stages, where in the first stage an outline proposal providing the essential aspects of the proposed network is submitted and evaluated with the help of external experts, and a full proposal is submitted in a second stage by those retained after that initial evaluation. When a two-step approach is to be followed, it will be specified in the relevant work programme, and its road-map.

4.2. Evaluation of proposals

The fundamental principles that govern the proposal evaluation system are:

- **transparency:** in order to provide the same clear framework for researchers preparing proposals, for experts evaluating proposals, and for the Commission services themselves;
- **fair treatment:** all proposals should be treated alike, irrespective of where they originate or the identity of the proposers and of previous connections;
- **impartiality:** all eligible proposals are treated impartially on their merits, subject to an independent peer review;
- **efficiency and speed:** the procedures must be designed to be as rapid as possible, commensurate with maintaining the quality of the evaluation and respecting the legal framework within which the RTD programme is managed;
- **ethical considerations:** any proposal that contravenes fundamental ethical principles (particularly those set out in the Charter of Fundamental Rights of the Union) or that does not fulfil the conditions set out in the work programme or in the call for proposals may be excluded from the evaluation and selection process at any time.

Peer review

Evaluation will be conducted by the Commission services with the assistance of independent experts according to the principles of “**peer review**”. However the system used for the evaluation of RTD projects in the Fifth Framework Programme will need to be strengthened in order to reflect the more ambitious goals and scale of networks of excellence.

Possibilities for strengthening the peer review system for networks of excellence 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. Such hearings would act as an additional means of simplifying proposal making, since proposals would no longer have to foresee answers to all possible questions that the experts might wish to ask. Two-stage submission (where only those applicants whose outline proposals pass the first stage will be invited to submit a full proposal) may also be considered.

Evaluation criteria

The following basic set of criteria is intended to be common to all priority thematic areas for the evaluation of proposals for networks of excellence. These criteria will be detailed and complemented as necessary in the relevant call for proposals.

- **Relevance to the objectives of the programme.** The extent to which:
 - the proposed network addresses the **scientific, technical, socio-economic and policy objectives** of the work programme in the areas open for the particular call.
- **Potential impact.** The extent to which:
 - Europe has a strategic need **to strengthen S&T excellence** on the topic by means of a structuring and shaping of the way that research on the topic is carried out in Europe;
 - the goals of the network are, in that connection, **suitably ambitious**, particularly in terms of achieving European leadership and acting as a world force on the topic;
 - there is an effective plan for **spreading excellence**, exploiting results and disseminating knowledge to those outside the network;
 - the proposed approach is likely to have a **durable structuring impact** on European research.
- **Excellence of the participants.** The extent to which:
 - the participants are currently conducting **excellent research** relevant to the topic of the network or are capable of important contributions to the joint programme of activities;
 - the participants are **well suited to the tasks** assigned to them;

- they **have collectively the necessary critical mass of expertise and resources** to carry out successfully the joint programme of activities.
- **Quality of the integration.** The extent to which:
 - the expected degree of integration justifies supporting the proposal as a network of excellence;
 - the proposed **joint programme of activities** is **sufficiently well-designed** to achieve the expected degree of integration;
 - the participating organisations have made a convincing **commitment towards a deep and durable integration** continuing beyond the period of Community support.
- **Organisation and management.** The extent to which:
 - the organisational structure of the network provides **a secure frame for any necessary structural decisions** to be taken;
 - the **management of the network** is demonstrably of high quality;
 - there is a well-considered plan for **promoting gender equality** in the network.

4.3. The negotiation process

For proposals that are successfully evaluated, the subsequent negotiation between the Commission services, possibly with the assistance of external experts, and the participants, will deal in particular with the following aspects:

- to finalise the objectives of the network, which should subsequently remain stable over the full duration of the contract;
- to agree an outline joint programme of activities for the full duration of the contract, which in most respects should also be considered to be fixed;
- to fix a detailed joint programme of activities for the first 18 months, which will subsequently roll forward annually with the approval of the Commission;
- to agree the performance indicators for this period, both qualitative and quantitative, for measuring progress towards durable integration (to be used by the Commission for the results-based follow-up and for the settlement of payments);
- to agree on the number of researchers that all participants intend to integrate (to form the basis for calculating the grant);
- to agree on the duration of the contract (any duration longer than 5 years will need to have a thorough justification);
- to agree on the schedule for the disbursements of the grant.

Because of the results-based nature of the contract, the negotiation phase will be of particular importance, both for the contractors and for the Commission.

The principles applicable in the negotiation phase will be detailed in publicly available guidelines.

5. THE CONTRACT

Work on the model contract for networks of excellence is on-going. More information will be found at http://europa.eu.int/comm/research/fp6/working-groups/model-contract/ondex_en.html

5.1. Content of the contract

The contract with the Commission will establish the rights and obligations of participants and in particular the arrangements for the monitoring of the progress towards a durable integration as well as for the technical, technological, financial monitoring the network, and, where appropriate, ethical monitoring of the network, the updating its joint programme of activities, changes in consortium membership, as well as rules regarding intellectual property rights.

The contract may be structured along the following issues:

- a **core** text containing the scope, duration, maximum Community contribution, deliverables, reporting and payment schedule, and the list of initial participants;
- a **technical annex** containing (a) the objectives of the network, an outline joint programme of activities for the whole duration of the contract, a description of the role of the participants, a description of the deliverables, ethical provisions, and a description of the management and organisation structure and (b) a detailed joint programme of activities for the first 18 months and relevant performance indicators;
- **general conditions** common to all FP 6 instruments, covering standard legal and administrative provisions, the IPR regime, and standard financial provisions among others;
- **conditions specific to networks of excellence**, for example the payment regime and the mechanisms for updating the joint programmes of activities.

5.2. Contracting parties

The contract shall be concluded between the Commission and all the participants (or with a common legal structure that represents them from the legal point of view). It shall enter into force on signature by the Commission and the co-ordinator. The other participants identified in the contract shall accede to it in accordance with it and shall enjoy the rights and assume the obligations of participants.

Any participant joining an ongoing project shall accede to the contract and enjoy the rights and assume the obligations of participants toward the Community.

5.3. Role of the co-ordinator

The consortium will designate one of its participants to act as the co-ordinator of the network. The following tasks of the co-ordinator will be specified in the contract:

- to act as the intermediary between all participants and the Commission, since all information related to the network will be transmitted to the Commission through the co-ordinator;
- to receive all payments made by the Commission on behalf of the participants and, not being the beneficiary of payments intended for the other participants, to administer the Community contribution according to decisions taken by the consortium;
- to inform the Commission of the distribution of payments to the participants.

The consortium may, of course, agree to entrust other tasks to the co-ordinator, in particular under the terms of any consortium agreement between the participants.

5.4. Collective responsibility of the participants

The technical implementation of the network will be the collective responsibility of the participants. Each participant will also be liable for the use of the Community financial contribution in proportion to his share of the network up to a maximum of the total payments it has received.

Should a participant breach the contract and should the consortium not make good this breach, the Commission may, as a last resort and if all other approaches have been explored, hold the participants liable under the following conditions:

- (a) Independently of any action it may take against the defaulting participant, the Commission will require the remaining participants to implement the network.
- (b) Should the implementation be impossible or should the remaining participants refuse to comply with subparagraph (a), the Commission may terminate the contract and recover the Community financial contribution. When investigating the financial disadvantage, the Commission will take into account the work already undertaken and results obtained, thereby establishing the debt.
- (c) For that part of the debt established according to subparagraph (b) that is owed by the defaulting participant, the Commission will distribute it among the remaining participants on

the basis of each participant's share of the expenses accepted and up to the amount of the Community financial contribution each participant is entitled to receive.

Where a participant is an international organisation, a public body or a legal entity whose participation to the network of excellence is guaranteed by a Member State or an Associated State, this participant is solely responsible for its own debt and will not be expected to bear the debt of any other participant.

5.5. Consortium agreement

The conclusion of a **consortium agreement** will be **mandatory** for all networks of excellence (unless otherwise specified in the relevant call for proposals). The need for a consortium agreement in part arises from the larger autonomy that consortia will be given and from the simplification of the contract with the Commission, for example with respect to the management of the Community contribution and to intellectual property. A **consortium agreement** may include:

- the internal organisation of the consortium, its **governance structure, decision-making processes and management arrangements**;
- arrangements for the distribution of the Community grant among participants and among activities;
- provisions for the settlement of disputes within the partnership;
- **specific arrangements concerning intellectual property** rights to be applied among the participants and their affiliates, in compliance with the general arrangements stipulated in the contract;
- **any other provision** necessary to ensure a sound management of the network of excellence.

The consortium agreement should be signed as early as possible and preferably no later than the date on which the contract with the Commission enters into force. The Commission will publish non-binding guidelines on points that may be addressed by a consortium agreement.

6. IMPLEMENTATION OF THE NETWORK

At the start of the contract, the consortium will have agreed with the Commission:

- an overall joint programme of activities for the full duration of the contract
- a detailed JPA for the first 18 months; and
- an initial list of participants.

The detailed JPA will be updated annually. Provisions in the contract will also allow the composition of the consortium to evolve as the network progresses.

6.1. Periodic reporting

Each year the consortium will submit to the Commission the following reports for the previous 12-months period, as well as a plan for the forthcoming 18-month period. The simultaneous submission of these documents allows optimal monitoring of progress by the Commission services and furnishes solid basis for the payment of the periodic advances.:

- An **activity report** for the previous twelve months, containing:
 - a management-level overview of the activities carried out by the network during the period as part of the joint programme of activities, comparing progresses against the plan;
 - a description of the progress achieved towards the integration of the research capacities of the network members, relating to the agreed performance indicators for the period;
 - the identification of problems encountered and the corrective action taken;
 - a statement, certified by an independent auditor, of the costs incurred by the participants in implementing the joint programme of activities during the period.
- A **joint programme of activities**, including a detailed programme for the eighteen months following the twelve-month period covered by the reports above, together with a revised set of performance indicators.

The Commission needs to review and approve all these documents. In doing so, the Commission will be assisted by external experts. Once the updated joint programme of activities and associated budget for the period that follows have been approved (subject, when necessary, to ethical review), they will be incorporated in the contract through a contract amendment.

6.2. Evolution of the consortium (without additional funding)

The contract will specify the procedures for modifying the membership of the consortium within the limits of the Community contribution. The following general cases can be envisaged.

Replacement of a participant: When the consortium is faced with the need to replace a participant, for example one that has withdrawn, the new participant may be selected without a competitive call, unless this is considered useful by the consortium itself (or specifically requested by the Commission). The Commission may object to the inclusion of particular selected new participants on grounds such as financial precariousness or past frauds.

Expansion of the consortium: The consortium may itself decide to take in new participants as the network evolves, though without any additional financing from the Community.

6.3. Additional financial contribution to extend the network

The Commission may decide to launch calls for proposals enabling the Community contribution to existing networks of excellence to be increased in order to take in new participants that may have emerged since the initial proposal was made or, for example, to involve particular types of participants. This possibility may, for example, be a useful mechanism for stimulating take-up measures and enhancing the participation of SMEs. The evaluation will be carried out in accordance with the general principles used for the evaluation of networks of excellence.

6.4. Final reporting

At the end of the contract, in addition to the activity report for the final period, a **final report** will be required, covering such issues as:

- an analysis of the extent, depth and potential durability of the integration realised among the participants in the network, compared to the performance indicators foreseen at the end of the contract;
- an assessment by the consortium of the impact of the network on strengthening and spreading excellence on the topic in Europe;
- an analysis of the impact of the network on the way that research is carried out in Europe on the topic considered compared to the situation described at the time of the submission of the proposal;
- a description of the network's activities relating to dissemination, transfer and exploitation of knowledge and of their potential impact (innovation-related activities, spin-offs...);
- an assessment of the technological impact of the activities of the network (technology transfer, spin-offs...);
- an assessment of the network's actions to promote gender equality.

6.5. Effective governance of the network

Because of the structuring nature of the network and because of the need to build on strengths and the tendency therefore for the participants to become mutually dependent, the network must establish an effective system of governance that ensures the active engagement of its participant organisations at the policy-making level.

One way of achieving that would be for each network to establish a “**governing board**”, consisting of high level representatives of the participant organisations. The main role of such a governing board would be to oversee the integration of the participants' activities.

The network may also wish to establish a “**scientific council**” involving external experts, to advise it on the nature of its joint programme of activities and, in particular, on its dual mission of both strengthening and spreading excellence in Europe.

7. FOLLOW-UP AND MONITORING

The Commission services will monitor the network so as to ensure proper work execution according to the terms of the contract, to protect the Community’s financial interests, to reinforce public accountability and to ensure maximum synergy and coherence with other actions within the specific programme. The Commission will need to develop a robust scheme suitable for the output monitoring of networks of excellence. Such a possible scheme is outlined below.

7.1. Regular follow-up by Commission services

A project officer from among the Commission staff, or a team of project officers, will be assigned to each network. Other persons, internal or external to the Commission with the appropriate technical expertise may assist the project officer. The project officer maintains close contact with the network management team in order to ensure proper overall monitoring, as well as timely feed-back between the project and the Commission on developments needing particular attention. The tasks of a project officer include:

- serving as a permanent contact point for the network;
- arranging the follow-up of the network, including analysis of all network’s reports, both from the integration point of view and from the financial/managerial points of view;
- attending all formal network reviews and any consortium meetings where this is deemed necessary.

The contract may foresee the following reviews by the Commission, all with the possible assistance of external experts:

- **annual reviews:** each twelve months during the implementation of a network, the Commission will arrange an independent review of the progress towards its agreed objectives and of the plans for the next period. This review will be based on a published set of criteria that will include, in particular, a criterion on “the degree of integration and the joint programme of activities” similar to that used in evaluating the initial proposal. Any network failing in the review to achieve the threshold for that criterion (and any other criterion with a threshold) will be offered the following choice:
 - to have its contract terminated immediately by the Commission and, if necessary, a recovery order made for at least part of that year’s grant;
 - to agree to implement the network for a further period of twelve months though without any further advance payment by the Commission. If in the independent review at the end of this period the network reaches the threshold(s), the Commission will make good its missing contribution in full and the contract will continue as normal. If however the network again fails to reach the threshold(s), the Commission will immediately terminate the contract and, if necessary, make a recovery order.
- **an end-of-term review:** primarily to assess the extent, depth and potential durability of the network’s integration and the impact of the network on structuring and shaping the way research is carried out in Europe on the topic considered.

It should be noted that, in the case of networks that are seriously underperforming, the Commission may exercise its right to terminate the contract on its own initiative at any time.

More specific technical audits, as well as financial and technological audits, may also be launched by the Commission (see next section).

7.2. Audits

The model contract will specify an audit regime to enable the Commission to proceed to audits, dealing with **technical, technological** (innovation impact), **financial and ethical** aspects:

- **Technical audits** may be launched at any point during the implementation of the network in order to verify that the network is being or has been carried out in accordance with the conditions indicated by the participants. The annual review will be considered a technical audit.
- **Financial audits** may be launched at any time, and may deal with any financial aspect of the contract. For each network, it is expected that **at least one financial audit will be carried out** within the auditable period.
- **Technological audits** dealing with the use and dissemination of results may be launched at the end of all the networks, but may also be carried out earlier, if considered necessary by the Commission.
- **Ethical audits** may be launched at any time during the implementation of the project in order to verify that the project is respecting fundamental ethical principles and national regulations.

Various audits may be undertaken simultaneously. In particular, parallel technical and financial audits of a given network might be opportune. The Commission itself will conduct the audits or entitle another entity to do so.

8. INTELLECTUAL PROPERTY

8.1. General principles

The rules regarding the protection, dissemination and use of knowledge have been **simplified** and a larger **flexibility** is granted to the participants:

- rules are identical for all participants;
- rules concentrate on the principles and provisions considered necessary for an efficient co-operation and the appropriate use and dissemination of the results;
- participants may define among themselves the arrangements that fit them the best within the framework provided in the model contract.

It should be noted that the same rules are intended to apply, when relevant, to all instruments used for implementing FP 6.

8.2. Ownership of knowledge

Since networks of excellence are not funded 100 % by the Community, participants will own the intellectual property of the knowledge resulting from the joint programme of activities.

8.3. Protection of knowledge

The owner of knowledge should provide adequate and effective protection for knowledge that is capable of industrial or commercial application.

The Commission may adopt protective measures when it considers it necessary to protect knowledge in a particular country and when such protection has not been applied for or has been waived.

Participants may publish information on the knowledge resulting, provided this does not affect the protection of that knowledge.

8.4. Use and dissemination of knowledge

Participants shall use or cause the use of the knowledge arising from the jointly executed research of the network, which they own, in accordance with their interests and with the provisions agreed among them.

If dissemination of knowledge does not adversely affect its protection or its use, it should be disseminated by the participants within a period laid down by the Community. If the participants fail to do so, the Commission may disseminate the knowledge. In doing that, the Commission and the contractors should take into consideration the following elements:

- the benefits of swift dissemination (in order to avoid duplication of research efforts and create synergies between actions);
- the need to safeguard intellectual property rights;
- confidentiality;
- the legitimate interests of the participants.

8.5. Access rights

Main principles

The provisions relating to access rights **are the same for all participants** (contrary to the FP5 situation, providing for different access rights for principal/assistant contractors). As a consequence, the table summarising the access rights system is much simpler (see below).

The control of pre-existing know-how by its owner(s) has been improved by making it possible for a participant to exclude specific pre-existing know-how from the obligation to grant access rights to it to other participants (see below), in agreement with all the other participants before the start of the contract.

The control of knowledge resulting from the jointly executed research of the network by its owner(s) has also been improved: a participant enjoys access rights to another participant's knowledge only if such access rights are necessary for the first participant to use its own knowledge.

Obligatory access rights between different networks have been suppressed. However, the participants may conclude any agreement aimed at granting additional or more favourable access rights (including to third parties, e.g. affiliates), or at specifying the requirements applicable to access rights (without restricting them). Such provisions may for instance be included in consortium agreements.

The Commission may object to the granting of access rights to third parties, in particular to those which are not established in a Member State or an Associated State, if granting such rights is not in accordance with the interests of developing the competitiveness of European industry or with ethical principles, in particular those described in the Charter of Fundamental Rights of the European Union.

Access rights for the jointly executed research of the network

Inasmuch as such access rights are needed to carry out their own part of the joint programme of activities, **all participants** in the project **enjoy access rights** to: (a) the knowledge arising from work carried out under the joint programme of activities, and (b) the pre-existing know-how of the other participants.

Access rights **to knowledge** shall be granted **on a royalty-free basis**. Access rights **to pre-existing know-how** shall be granted **on a royalty-free basis**, unless other conditions have been agreed upon before signature of the contract..

Subject to its legitimate interests, the termination of the participation of a participant shall in no way affect the obligation to grant access rights for the execution of the network to the other participants until the end of the network.

Access rights for use purposes ("use" = exploitation + further research)

Inasmuch as such access rights are needed to use their own knowledge, participants in the network enjoy access rights to: (a) the knowledge arising from work carried out under the joint programme of activities and (b) the pre-existing know-how of the other participants.

Access rights **to knowledge** shall be granted **on a royalty-free basis, unless** other conditions were agreed upon before signature of the contract. Access rights **to pre-existing know-how** shall be granted **on non-discriminatory and reasonable conditions** to be agreed.

Subject to the participants' legitimate interests, access rights for use purposes may be requested until two years after the end of Community contribution or after the termination of the participation of a participant, whichever falls earlier, unless the participants agree on a longer period.

Summary of access rights

	Access rights to pre-existing know-how	Access rights to knowledge resulting from the joint programme of activities
For carrying out the joint programme of activities	Yes, if a participant needs them for carrying out his own work under the joint programme of activities	
	Royalty-free unless otherwise agreed before signing the contract	Royalty-free
For use purposes (exploitation + further research)	Yes, if a participant needs them for using his own knowledge	
	On non-discriminatory and reasonable conditions to be agreed	Royalty-free, unless otherwise agreed before signing the contract
	Possibility for participants to agree on exclusion of specific pre-existing know-how of a participant from this obligation before this participant signs the contract (or before entry of a new participant)	

ANNEX I

PARTICIPATION POSSIBILITIES BY COUNTRY OF THE PARTICIPANT

Participant's country of establishment	Participation	Researchers taken into account when calculating the grant
European Union	Rightfully	Rightfully
Associated Candidate Countries	Rightfully	Rightfully
Other Associated Countries	Rightfully	Rightfully
International organisations of European interest	Rightfully	Rightfully
Russia, New Independent States, Mediterranean Countries, Developing Countries	Rightfully over and above the minimum threshold	Within the limits of the budget available for international co-operation activities in the context of the thematic priorities
Other third countries having a co-operation agreement	Rightfully over and above the minimum threshold	If Community contribution is necessary and foreseen by the Work programme
Other third countries	If participation is foreseen or if it is necessary for carrying out the jointly executed research of the network	If Community contribution is foreseen or if it is essential for carrying out the joint programme of activities
Other international organisations	Rightfully over and above to the minimum threshold	If Community contribution is foreseen in the Work programme or if it is essential for carrying out the joint programme of activities

ANNEX II

CONTENT OF NETWORKS OF EXCELLENCE PROPOSALS

Applicants may be asked to include the following elements in their proposals:

Objectives and strategic impact

- A description of research in Europe in the topic of the network, in particular the extent of fragmentation, its impact on the effectiveness of European research and the need for a more integrated and coherent approach;
- The potential contribution of the network to a durable shaping and structuring of the way that research is carried out on the topic at European level;
- The degree of ambition of the goals of the network particularly in terms of providing European leadership and acting as a world force on the topic;
- An assessment of the potential impact of the science and technologies involved on society and a plan for communicating with policy makers, citizens etc;
- How the proposed network addresses the scientific, technical, socio-economic and policy objectives of the work programme in the areas open for the particular call.

Excellence of the participants and resources of the network

- A description of the resources and capacities (human, equipment, research facilities, etc) that the participants intend to integrate;
- The names and qualifications of the researchers that will constitute the research capacities in the network should the proposal be successful (i.e. those researchers that will be the basis for the calculation of the grant);
- A description of the relevant research currently being carried out by the participants.

Degree of integration and the joint programme of activities

- The main lines and timetable of an outline joint programme of activities, for the whole duration of the Community support, explaining how it will enable the network to achieve its objectives, concentrating on the main components:
 - integrating activities,
 - the programme of jointly executed research,
 - activities to spread excellence, in particular the joint training programme;
- Possible performance indicators both qualitative and quantitative, for measuring progress towards integration during the period of the contract;
- A detailed joint programme of activities for the first eighteen months of the network, explaining the role of each of the participants.

Organisation and management

- A description on how the participating organisations will be involved in order to provide a secure frame for the necessary structural decisions to be taken;
- The description of the organisational, management and decision-making structures of the network;
- A plan for the management of knowledge, of intellectual property and of other innovation-related activities, noting in particular the involvement of SMEs;
- An action plan through which gender equality will be promoted within the network.

Ethics, safety and other issues

- The identification of potential ethical and safety issues and the way they will be handled.

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