

**Support for Research Infrastructures in the
FP6 Specific Programme on
"Structuring the European Research Area"**

**WORK PROGRAMME
(2002-2003)**

European Commission
Directorate-General for Research - Unit RTD-B.4: "Research Infrastructures"
Directorate-General for Information Society - Unit INFSO-F.2: "Research Networks"

This document provides a general description of the action in support of research infrastructures in the Specific Programme on *Structuring the European Research Area*, itself part of the Sixth Framework Programme for Community R&D, 2002-2006 (FP6). It also describes how this action will be implemented.

3. Research Infrastructures

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3.1 Introduction and Objectives

The ability of Europe's research teams to remain at the forefront of all fields of science and technology depends on their being supported by state-of-the-art infrastructures. The term "research infrastructures" refers to facilities and resources that provide essential services to the research community in both academic and/or industrial domains. Research infrastructures may be "single-sited" (single resource at a single location), "distributed" (a network of distributed resources, including infrastructures based on Grid-type architectures), or "virtual" (the service being provided electronically).

Examples include singular large-scale research installations, collections, special habitats, libraries, data-bases, integrated arrays of small research installations, high-capacity/high-speed communications networks (e.g. Géant), networks of computing facilities (e.g. Grids), as well as infrastructural centres of competence which provide a service for the wider research community based on an assembly of techniques and know-how.

The overall objective of this activity is to promote the development of a fabric of research infrastructures of the highest quality and performance in Europe, and their optimum use on a European scale based on the needs expressed by the research community. Specifically this will aim at:

- ensuring that European researchers may have access to the infrastructures they require to conduct their research, irrespective of the location of the infrastructure;
- providing support for a European approach for the development of new research infrastructures, also at the regional and transregional level, and for the operation and enhancement of existing infrastructures, including where appropriate facilities of world-wide relevance not existing in Europe.

Support for research infrastructures in the present action is open to infrastructures throughout the fields of science and technology covered by Art.163 of the Treaty¹, in a "bottom-up" manner, i.e. without any preference for one field over another.

Likewise, access to supported infrastructures will be available on a “bottom-up” basis, i.e. independently of the specific research priorities of potential users. In this way, the present action is complementary to the forms of support available under the thematic priorities of the Framework Programme.

3.2 Support Schemes

Five schemes for support are available under the Research Infrastructures action: 1. *Transnational Access*, 2. *Integrating Activities*, 3. *Communication Network Development*, 4. *Design Studies*, and 5. *Construction of New Infrastructures*. They are described in sections 3.2.1 to 3.2.5 below. Accompanying measures are described under section 3.3.

3.2.1 Transnational Access

3.2.1.1 Specific objectives

The objective of this scheme is to sponsor new opportunities for research teams (including individual researchers) to obtain access to individual major research infrastructures they require for their work. Such infrastructures must be rare in Europe, must provide a world-class service essential for the conduct of top quality research, and must typically have investment or operating costs that are relatively high in relation to those costs in their particular field. The infrastructures must also be able to provide adequate scientific, technical and logistic support to external, particularly first-time, users.

Access may be made available to external users, either in person ("hands-on") or by suitable electronic communications. It may also take the form of provision of remote scientific services, such as the provision of reference materials or samples, the performance of sample analysis, of specific measurements or of experiment-based consultancies. Access to a given infrastructure will be granted following a selection of potential users by "peer review" (see also §3.2.1.4).

3.2.1.2 Forms of support

¹ Treaty of the European Union (Official Journal C 340, 10.11.1997, pp. 145-172): http://europa.eu.int/eur-lex/en/treaties/dat/eu_cons_treaty_en.pdf

This scheme is to be implemented through *Specific Support Actions*. Community support is intended to cover the provision of access to an infrastructure for research teams working in Member States and Associated States other than the state where the operator of the infrastructure is established. There will be two ways of calculating access costs:

- On the basis of the User Fees: this system includes a *Unit Cost*, specified in Euro per unit of access, to be calculated on the basis of the infrastructure's average annual direct costs of providing access, divided by the total annual quantity of access provided to all normal users of the infrastructure (i.e. both internal and external, but excluding the new users to be supported). A flat-rate of up to 20% may be added to cover all related indirect costs.
- On the basis of the actual additional costs of giving access to users.

In both cases, the costs connected with making the access to the infrastructure available to the research teams may cover also preparatory work and specific training courses for new users. Community support will also cover the travel and subsistence costs related to visits by users, where necessary.

Community support will exclude all contributions to the capital investments of the infrastructure. Support for transnational access to a given infrastructure may not exceed 20% of the annual operating costs of that infrastructure, so as to avoid any undue dependence in the running of the infrastructure itself.

3.2.1.3 Participants

Contracts supported through this scheme will be concluded with **only one participant** (mono-partner contract). A participant in this scheme will be a legal entity, established in the Member States or Associated States, which operates major research infrastructures. Normally, infrastructures will be located on a single site. A geographically dispersed group of smaller complementary infrastructures having the same characteristics as a major infrastructure (as defined in §3.2.1.1) could also be considered for support provided they offer a coherent service under a unified management structure.

On the other hand, consortia of independent infrastructure operators wishing to offer access in a co-ordinated and integrated manner should apply for support under the scheme of *Integrating Activities* (see section 3.2.2).

International European Interest Organisations (IEIO) operating major research infrastructures (e.g. CERN, EMBL, ESA, ESO, ESRF, ILL) may participate with financing from this scheme under the same conditions as legal entities from Member States and Associated States.

3.2.1.4 Publication of opportunities for potential users

The list of infrastructures selected will be published on the Internet home page of the Research Infrastructures action, in order to inform potential users, i.e. researchers who wish to have access to one of these infrastructures in the context of this action, that

they should address themselves directly to the infrastructure operator concerned. Infrastructure operators will also be required to make regular publications, e.g. on the Internet, describing the opportunities available.

The choice of users will be made by each infrastructure operator by a peer review on the basis of the scientific/technical merit of proposals from prospective users, while giving priority to first-time users and to users in countries without a similar infrastructure. The choice of users will be made in accordance with the principles of transparency, fairness and impartiality.

User groups from the same country where the operator of the infrastructure is established will be excluded from access. This means that the leader of a selected user group and the majority of the users in the group must come from a Member State or an Associated State other than the state where the operator of the infrastructure is established. This exclusion will not apply to infrastructures operated by International European Interest Organisations (IEIO).

By analogy with the transnational conditions set out for users in the case of national facilities, Community support for access to infrastructures operated by IEIO will be limited to access activities that would not normally be covered by the organisation's own financial resources.

Where different facilities are offered simultaneously under a unified management structure, this eligibility condition for user groups will be applied separately on each facility. This applies, e.g. to a group of facilities on a single site, which are operated by different national organisations but managed by one of them for the purpose of the contract.

Users will be expected to publish their results within a reasonable time in the open literature, according to guidelines established by the Commission services. As a general rule, users conducting research for commercial purposes will not be supported under this scheme. An exception will, however, be made in the case of SMEs who wish to use a particular infrastructure for the first time.

3.2.2 Integrating Activities

3.2.2.1 Specific objectives

The objective of this scheme is to support the integrated provision of infrastructure related services to the research community at a European level. It is also intended to have a structuring effect on the fabric of European research by promoting the coherent use and development of infrastructures in the fields it covers. To that end, the main characteristic of Integrating Activities will be their capacity to mobilise a large number of stakeholders in a given class of infrastructure.

The ambition of an Integrating Activity should be to induce a long-term integrating effect on the way research infrastructures operate, evolve and interact with similar infrastructures and with their users, thereby contributing to structure the European Research Area.

- Operators of similar infrastructures in a given class should for instance find it easier, through an Integrating Activity, to develop synergies and complementary capabilities in such a way as to offer an improved access to researchers.
- Likewise, infrastructure operators and users should be in a better position to tackle new or unexpected developments in their field, for instance in relation to state-of-the-art instrumentation, with a more co-ordinated approach.
- More generally, a closer interaction between a large number of scientists active in and around a number of infrastructures will facilitate cross-disciplinary fertilisations and a wider sharing of knowledge and related technologies across fields and between academia and industry.

In general, each Integrating Activity will be concerned with a specific class of research infrastructures of Europe-wide interest. However, Integrating Activities that include research infrastructures from different classes, with a view to generate new interdisciplinary fields or to encourage interaction between different research communities, will also be supported provided they can demonstrate a wide European interest.

3.2.2.2 Forms of support

This scheme is to be implemented primarily through *Integrated Infrastructure Initiatives*. The special case of Integrating Activities limited only to networking activities will be implemented through *Co-ordination Actions*.

The activities of an Integrating Activity will exclude design studies related to new infrastructures, or their construction, which can only be financed through the corresponding schemes (see sections 3.2.4 and 3.2.5).

Within an Integrating Activity, networking activities will exclude any form of research activity, which can only be supported through the joint research activities. Transnational access to one or more of the participating infrastructures will be supported on the same terms as outlined for the individual Transnational Access scheme. Community funding for an Integrating Activity will exclude all contributions to capital investments.

3.2.2.3 Activities

Each Integrating Activity shall combine, within a single contract, several activities essential to reinforce research infrastructures and to provide an integrated service at the European level. More specifically, each Integrating Activity will cover: (i) networking activities (including consortium management); (ii) provision of access to transnational users; and (iii) joint research activities. The latter will in particular aim at raising the level of the performance of the infrastructures concerned. The first of these categories is mandatory in an Integrating Activity and underpins the other two, which are optional.

- Networking activities.* The underpinning component of an Integrating Activity will be a networking action, which will help catalyse the mutual co-ordination and the pooling of resources among the consortium of participants, with the aim of fostering a culture of co-operation between them. This should serve, e.g., to

generate critical mass by co-ordinating research into new instrumentation, new methods, concepts and technologies.

Networking activities will also aim at spreading good practice, promoting common protocols and interoperability, encouraging complementarity and, where appropriate, developing and maintaining common databases and stimulating the creation of distributed or virtual facilities. Activities in this context will include, where relevant, publicity concerning new opportunities for access, dissemination of knowledge, training courses for potential users and foresight studies.

Networking all the participants will cover also the co-ordinated implementation and management of the whole Integrating Activity. The internal consortium management will include, where appropriate, monitoring the impact of the various activities of the Integrating Activity (e.g. through statistics on transnational users and related projects).

- ii. *Transnational access.* The activities of an Integrating Activity may cover the support of transnational access to one or more infrastructures among those operated by participants. The characteristics of this type of activity should be similar to those outlined for the scheme in support of individual Transnational Access (as described in section 3.2.1), though with a more collective and co-ordinated approach to the provision of access to different infrastructures. In this context, access to a number of infrastructures should be provided in a coherent manner, so as to improve the overall services available to the research community.

As in the individual scheme, and subject to the same type of peer reviewed selection of potential users, access will typically imply research teams visiting an infrastructure in person or by electronic means. Likewise, access may include, where appropriate, the provision of remote scientific services (e.g. provision of reference materials or samples, performance of sample analysis, etc.).

In addition, in the special case of the provision of services based on free communications, for instance access to databases via Internet, support through an Integrating Activity will exceptionally be available to the extent that a clear justification is given of the European added value of such services.

Note: It is not intended that an infrastructure supported for access within an Integrating Activity can be supported, at the same time, under the individual scheme for Transnational Access (section 3.2.1), or vice-versa, or under a separate Integrating Activity. An exception will be made only in those cases where the same infrastructure is offering different services under different contracts, provided a clear distinction can be demonstrated between the corresponding populations of potential users.

- iii. *Joint research activities.* Integrating Activities may support the implementation of one or more joint research projects (e.g. joint research into higher performance techniques, instrumentation or technologies) aimed at improving, in quality or quantity, the service provided by existing infrastructures in a particular

field in Europe. Joint research projects should be widely applicable to the different infrastructures in the given class covered by an Integrating Activity.

Research projects should be innovative and explore new fundamental technologies or techniques underpinning the use of infrastructures in a given class (e.g. development of new generation equipment, testing of new experimental techniques or methodologies). Attention should be given to potential exploitation of the results, e.g. through the participation of SMEs.

3.2.2.4 Participants

Participants in this scheme will be operators of research infrastructures, universities and other public research organisations as well as industry, and equipment manufacturers (e.g. SMEs). Integrating Activities will contain at least three independent legal entities established in three different Member States or Associated States, of which at least two shall be a Member State or an Associated candidate country. At least one of these legal entities must operate a research infrastructure. Likewise, each of the joint research projects within an Integrating Activity will be undertaken by a minimum of three different participants, which must be located in at least three different Member States or Associated States, of which at least two shall be a Member State or an Associated candidate country.

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 provided their composition is in accordance with the conditions fixing the minimum number of participants.

As stated earlier, the main characteristic of an Integrating Activity will be its capacity to mobilise a large consortium of stakeholders in a given class of infrastructure. On the basis of the experience obtained in previous Framework Programmes, it is possible to anticipate that the number of infrastructures in an Integrating Activity will typically be around 5-10 though, in certain fields, it could be larger. Likewise, the total number of participants, including other stakeholders, will naturally tend to be much larger than the above minimum thresholds.

Not every participant needs to have an active role in each of the activities of an Integrating Activity. Different activities will be implemented according to a variable geometry approach, although of course under a unified management.

International European Interest Organisations (IEIO) and the JRC may participate under the same conditions as legal entities from Member States and Associated States. Integrating Activities will also be open to participation of entities from non-associated third countries, with special provisions for possible Community financial support for entities belonging to certain groups of countries, as indicated in the *Rules for Participation*². As far as access is concerned, however, the conditions for participation will be the same as for the individual Transnational Access scheme (see §3.2.1.2).

3.2.3 Communication Network Development

² http://europa.eu.int/comm/research/fp6/pdf/rules_en.pdf

3.2.3.1 Specific objectives

The objective of this scheme in support of existing research infrastructures is to create, in conjunction with the priority thematic research area on Information Society Technologies (IST), a denser network between related initiatives, in particular by establishing a high-capacity and high-speed communications network for all researchers in Europe (GÉANT) and specific high performance Grids and test-beds (GRIDs).

A budget of up to EUR 200 million has been earmarked out of the total available for support of research infrastructures (plus a further EUR 100 million from the priority thematic area on IST specially dedicated to support the deployment of testbeds and future generation Grid³), for the further development of GÉANT and GRIDs.

In general, the *Communication Network Development* scheme will be concerned with the development of a “cyber-infrastructure” for Research capitalizing on new computing and communication opportunities and will promote a further breadth and depth to the collaboration amongst researchers in Europe. In this context, broadband communication networks and Grid technologies are key; in general, they are also highly relevant to the political goals set out by the European Research Area and the *eEurope/eEurope+* initiative⁴ and should be used as a means to enhance scientific co-operation with third countries.

3.2.3.2 Forms of Support

In the majority of the cases, the instrument used for Communication Network Development will be the *Integrated Infrastructure Initiative (I3)*. Specific activities limited to networking, aiming at fostering the mutual co-ordination and the pooling of resources, can be supported through *Co-ordination Actions*. *Specific Support Actions* will be also available for activities such as workshops, roadmaps development or studies.

3.2.3.3 Areas of work

The deployment of a “cyber-infrastructure” for Research in Europe requires a coordinated approach to the development of GÉANT, Grids and Testbeds.

The work on Testbeds will be done within the context of the Thematic Priority 2 (IST) using specific instruments and budget.

Within Research Infrastructures, the Communications Network Development scheme will entail work in two areas:

³ <http://www.cordis.lu/ist/>

⁴ http://europa.eu.int/information_society/eeurope/

- GÉANT - provision of an European high-capacity and high-speed communications network interconnecting the European National Research and Education Networks (NRENs). This network will represent a significant step forward as compared to the network provided by the FP5 project GN1, both in terms of services, communities served, geographical scope, bandwidth and readiness to adopt relevant new technologies.
- Grids - deployment of advanced Grids-empowered infrastructures. These infrastructures should exhibit production-level performance capabilities and constitute themselves distributed facilities at gigabit/terabit scales (in terms of computing, storage and communication power). They should be able to provide basic common middle-ware services (requiring significant reengineering of the interconnect infrastructures) and will serve as common underlying infrastructures for a broad range of different research disciplines.

In this context, the current experimental infrastructures deployed in Europe and elsewhere in the world in the area of Grids will be further deployed and become a fundamental enabling factor for carrying out research in a new way, notably by the establishment of very efficient virtual communities.

Cross-fertilisation and optimisation of synergies between GÉANT, Grids and testbeds is an essential factor for the success of the Communication Network Development scheme. Such an integrated approach will favour the deployment of the cross-domain and cross-border experimentation environments necessary for the coherent integration of technologies, policies, legal aspects and user needs. This will promote the fast validation and pervasive penetration of state-of-the-art technology in the research infrastructures at the same time as it will create the ideal scale and focus to foster the new technological and services developments required by the research community.

This integrated approach is seen particularly relevant for Grids, because high speed research networks enable their deployment and also due to the broad range of relevant underlying technologies. In addition, while the time is right to move from prototype to production applications, the Grids market is not yet mature to justify major investments in Grids infrastructure by the conventional ICT-industry.

Similarly, the technologies validated in the context of testbeds (e.g. optical technologies, new Internet protocols such as IPv6, etc.) will significantly contribute to deploy new generations of high speed research networks.

Work should, where appropriate, enhance, complement and exploit synergies with the relevant national and international initiatives.

(a) GÉANT

In order to foster and enhance Europe's position to provision a high-capacity and high-speed communications network for all researchers (GÉANT), it is necessary for a proposal in this area to address the following objectives:

- Maintain and further upgrade the services and functionality of the existing GÉANT network (as provided by the FP5 GN1 project). There is a growing demand for bandwidth which clearly shows the need to address the hundreds of gigabit/s range of communication capacities, effectively managed and deployed in a production-class network. In this context, the adoption of recent advances in a number of technologies such as photonics, lambda management, etc., is very important.
- Promote the provision of end-to-end connectivity and services (user-to-user) by ensuring a high level of cohesion and coordination of priorities amongst the interconnected NRENs. The adoption of innovative techniques to manage different administrative domains (in areas such as trust and confidence and using technologies such as agents) should be investigated.
- Enhance the “inclusiveness” of the research network infrastructure by taking into account the demands of various actors in the field (e.g. schools, educational networks, libraries, e-learning, etc.).
- Provide efficient service support and integrate research projects on-top of the network infrastructure.
- Become an instantiation of “Next Generation Networks” by making timely use of the results of advanced test-beds in close co-operation with industrial players and network operators.
- Exploit the opportunities of a liberalised telecommunication environment (“own” fibre, “own” network, etc.).
 - Strengthen Europe’s position as a global player in the field of networking by maintaining and extending the current international connectivity to the National Research and Education Networks (NRENs) in regions outside Europe (e.g. Mediterranean, Far-East and Pacific-Rim, Africa, South-America).

The strategic ambition of upgrading GÉANT requires the involvement of the National Research and Education Networks.

(b) Grids

In order to foster the deployment of advanced Grids-empowered infrastructures and enhance Europe’s position in the area of Grids, it is necessary for a proposal in this area to address the following objectives:

- Ensure that these infrastructures exhibit production-level performance capabilities and constitute themselves distributed facilities at gigabit/terabit scales (in terms of computing, storage and communication power) for use by a broad range of different research disciplines. In this context, addressing autonomous administrations and Quality of Service (QoS) requirements becomes relevant. Economies of scale are expected to be demonstrated.
- Promote complementary work vis-à-vis national Grid-Programmes in Europe in view to add value to national Grid-initiatives and support the creation of a network of (e.g. National) Grid Support Centres in Europe.
- Interconnect major Grid-based experimental infrastructures in Europe with the corresponding ones in the world, e.g. US, Asia-Pacific region and others. Contribute that way to the creation of a “virtual Grid-based research space” across world regions.

- Emphasise the integration of access facilities and interfaces/portals into core Grid infrastructure environments (e.g. wireless-devices, sensors).
- Address and integrate both supercomputing and cluster-computing technology, concepts and resources.
- Foster interoperability across heterogeneous technology domains and interoperability of solutions across different disciplines in an effort to achieve broader scale uptake of Grid technology across numerous user communities; in the same context support the creation of standards and strengthen contributions to open-source and open-service provision objectives.
- Support the further integration of Grid and Semantic/Web technological and business concepts.

The strategic ambition of deploying a fabric of Grid infrastructures in Europe calls for the involvement, amongst others, of stakeholders able to produce or process large quantities of scientific relevant data (such as national Research Centres or International Organisations in the different research fields).

The work on the IST strategic objective “GRID-based Systems for solving complex problems” will significantly contribute to ensure that the Grids infrastructures deployed incorporate the latest technological and architectural advances.

3.2.3.4 Activities

The programme of activities of a typical Communication Network Development Initiative is centred on the provision of computing and communication infrastructures and services to the research community at the European level and uses the I3 instrument. Complementary activities can be supported through Co-ordination Actions and Specific Support Actions.

A typical Communication Network Development Integrated Infrastructure Initiative (I3) shall combine, within a single contract, several activities essential to reinforce research infrastructures and to provide an integrated service at the European level. More specifically, each Communication Network Development Initiative will cover: (i) networking activities (including consortium management); (ii) specific service activities; and (iii) joint research activities. The latter will in particular aim at raising the level of the performance of the infrastructures concerned. The first of these categories is mandatory in a Communication Network Development Initiative and underpins the other two, which are optional.

- i. *Networking activities.* The underlying component of a Communication Network Development Initiative will be a networking action, which will help catalyse the mutual co-ordination and the pooling of resources among the consortium of participants, with the aim of fostering a culture of co-operation between them. This should serve, e.g. to generate critical mass and economies of scale by co-ordinating research into methods, concepts and technologies.

Networking activities will also aim at spreading good practice, promoting common protocols and interoperability, encouraging complementarity and, where appropriate, developing and maintaining shared resources and stimulating the creation of distributed or virtual facilities.

This component will cover also the co-ordinated implementation and management of the whole Communication Network Development Initiative. The internal consortium management will include, where appropriate, monitoring the impact of the various activities of the Communication Network Development Initiative (e.g. through statistics on usage and related projects).

- ii. *Specific service activities.* The provision of computing and communication infrastructures and services to the research community at the European level is key to the Communication Network Development scheme. Hence, a Communication Network Development Initiative needs to ensure the continued provision and upgrading of the required infrastructure related services. In particular, in the case of telecommunications connectivity services, public procurement rules should apply and a maximum contribution of 50% to the budget is foreseen.
- iii. *Joint research activities.* Communication Network Development Initiatives may support the implementation of one or more joint research activities (e.g. joint research into new computing and communications technologies such as lambda management in the case of GÉANT and clusters-computing technology in the case of Grids). The joint research activities aim to improve or enhance the service provided by the infrastructure, in such way that it could have widespread significance to a number of research communities in Europe.

Joint research activities should be innovative and explore new fundamental technologies or techniques underpinning the use of infrastructures by several research communities (e.g. new services in the case of GÉANT and new security policies/facilities in a Grids infrastructure). Attention should be given to potential exploitation of the results, e.g. through the participation of SMEs.

In some concrete and well justified cases, the activities of a Communication Network Development Initiative may cover the transnational access to one or more infrastructures concerned by the initiative (including virtual access).

In the case of GÉANT, a pan-European state-of-the-art network infrastructure for the research and education sector in Europe has to be provisioned, interconnecting the National Research and Education Networks (NRENs). This infrastructure will not only interconnect the National Research and Education Networks (NRENs) of the Member States and the Associated States but will also link with other NRENs around the world as a means to enhance scientific co-operation with third countries.

3.2.3.5 Participants

One of the characteristics of a Communication Network Development Initiative will be its capacity to mobilise a large consortium of stakeholders (including International Organisations). Not every participant needs to have an active role in each of the activities of a Communication Network Development Initiative. Different activities will be implemented according to a variable geometry approach, although of course under a unified management.

In the case of the provision and enhancement of a research network backbone for all Researchers in Europe (GÉANT), the proposal must be collectively submitted by the legal entities in each Member State and Associated State in charge of operating the National Research and Education Networks (NRENs). NRENs from other countries might participate too, on a case by case basis. Legal entities created by the NRENs to contribute to the deployment of connectivity and services on a pan-European scale (e.g. DANTE, TERENA) can also participate.

3.2.4 Design Studies

3.2.4.1 Specific objectives

The objective of this scheme is to contribute, on a case-by-case basis, to feasibility studies and technical preparatory work undertaken in one or a number of Member States or Associated States, for those new infrastructures which have a clear European dimension and interest, taking into account the needs of all potential users and systematically exploring the possibilities of contributions from other sources, including the European Investment Bank (EIB)⁵ or the Structural Funds⁶ (for projects located in Member States) for the funding of these infrastructures.

Design studies related to future facilities of world-wide relevance not existing in Europe (including infrastructures that might be constructed outside the Member States and Associated States), but to which European organisations intend to participate are included. The upgrading of existing infrastructures may also be considered, when the end result is intended to be equivalent to, or be capable of replacing, a new infrastructure.

- *Feasibility studies* will aim at laying the conceptual foundations of a potential new or enhanced infrastructure. This could consist in the basic feasibility study of a specific new facility or in exploring a new fundamental technology or technique underpinning a whole new concept. Alternatively, a feasibility study could cover the detailed engineering design of a proposed infrastructure, in particular in relation to its most technologically advanced aspects (i.e. excluding the detailed design of standard elements of the new infrastructure).
- *Technical preparatory work* will cover the development and testing of components, subsystems, materials or techniques (including dedicated software) that are critical for the future development of a new or enhanced infrastructure. Support will however not be provided for preparatory work based on existing or proven techniques or technologies, nor when it aims at reproducing available components or materials.

3.2.4.2 Forms of support

⁵ More information on the loans available through the EIB can be found on the EIB web site: www.eib.org/i2i/en/index.htm

⁶ More information on Structural Funds can be found on the "Europa" site on Internet: http://europa.eu.int/comm/regional_policy/index_en.htm

This scheme is to be implemented through *Specific Support Actions*. Contributions to capital investments will be excluded as they can only be provided through the scheme to support the construction of new infrastructures (see section 3.2.5).

3.2.4.3 Participants

Design studies should guarantee a level of European participation and interest beyond purely national or bilateral co-operations. Proposals submitted by a small number of participants (e.g. a proposal involving one national, or international, organisation), may however be considered for support provided they are duly justified by a clear European interest of the proposed infrastructure. Such interest would normally be assessed in terms of the needs of potential users within a Europe-wide context.

International European Interest Organisations (IEIO) and the JRC may participate under the same conditions as legal entities from Member States and Associated States.

Design Studies will also be open to participation of entities from non-associated third countries, with special provisions for possible Community financial support for entities belonging to certain groups of countries, as indicated in the *Rules for Participation*⁷. Such extended partnerships would be particularly suited to design studies related to future facilities of world-wide relevance, or when initiatives to design similar infrastructures exist also outside Europe, with which useful synergies might be established.

3.2.5 Construction of New Infrastructures

3.2.5.1 Specific objectives

The objective of this scheme is to optimise European infrastructures by providing limited support for the development of a restricted number of projects for new infrastructures in duly justified cases where such support could have a critical catalysing effect in terms of European added value. This support, taking due account of Member States' opinion, may supplement contributions from the EIB or the Structural Funds (for projects located in Member States) to the funding of these infrastructures. In the latter case the regional and transregional impact of the proposed infrastructure will be taken into account.

Support may also be granted for a major enhancement or upgrading of existing infrastructures, in particular where this would represent a possible alternative to the construction of a new infrastructure. The scheme may also contribute, where appropriate, to the construction of an infrastructure of world-wide relevance not existing in Europe (including infrastructures to be constructed outside the Member States and Associated States), provided that organisations established in the Member States or Associated States are active participants and to the extent that a clear European interest exists in the use of that infrastructure.

In general, funding provided for new or enhanced infrastructures will be limited to the minimum necessary to catalyse the activity; the major part of construction and

⁷ See footnote 2.

operation, and the long-term sustainability of the infrastructures in question being assured by national and/or other sources of finance. Such funding would only be provided on the basis of a detailed justification, based on European added value, addressing the scientific, legal and financial dimensions of the proposed development.

European added value should be demonstrated in terms of an improved attractiveness for, and/or improved services to, the research community in Europe (e.g. in terms of a wider accessibility of the proposed infrastructure, of a more advanced technology, of a more flexible adaptability to interdisciplinary studies, of a better connectivity to the research community). Where relevant, Community support will be subject to the provision of improved services by the new infrastructure (e.g. free access for European researchers to a specific instrument, or equivalent discounted services, for a number of years).

3.2.5.2 Forms of support

This scheme is to be implemented through *Specific Support Actions*.

3.2.5.3 Participants

A proposed project will guarantee a level of European participation and interest beyond purely national or bilateral co-operations. Proposals submitted by a small number of participants (e.g. a proposal involving one national, or international, organisation), may however be considered for support provided they are duly justified by a clear European interest of the proposed infrastructure. Such interest would normally be assessed in terms of the needs of potential users within a Europe-wide context.

International European Interest Organisations (IEIO) and the JRC may participate under the same conditions as legal entities from Member States and Associated States.

Construction projects will be open to participation of entities from non-associated third countries, with special provisions for possible Community financial support for entities belonging to certain groups of countries, as indicated in the *Rules for Participation*⁸. Such extended partnerships would be particularly suited to the construction of future facilities of world-wide relevance, or when initiatives to construct similar infrastructures exist also outside Europe, with which useful synergies might be established.

3.3 Accompanying Measures

3.3.1 Specific objectives

Support for research infrastructures in this programme should, where relevant, take into account existing or future mechanisms for a co-ordinated approach to research infrastructures in Europe (e.g. European Strategy Forum on Research Infrastructures), as well as the scientific advice of existing European and international organisations (e.g. European Science Foundation – ESF, National Research and Education

⁸ See footnote 2.

Networks – NRENS). Accompanying measures under this programme may be implemented, where appropriate, to sustain these mechanisms.

The specific objectives of such measures include:

- facilitating the creation, circulation and maintenance of information and databases that are relevant to policy makers and other stakeholders in the domain of research infrastructures, either in a given class or across different classes;
- supporting existing national and international organisations in Europe wishing to undertake independent studies on science and technology issues related to policy making in the field of research infrastructures, including socio-economic and comparative analysis.

More specifically, four types of accompanying measures will be available:

- a) *Database Studies* will explore the feasibility of, or will actually implement, the creation, maintenance and distribution of databases, including Internet-based databases, either specific to a scientific domain or of transdisciplinary nature, which are relevant to policy makers involved with research infrastructures. Databases related to classes of infrastructure already covered by an Integrating Activity may be excluded to the extent that they may be supported within the corresponding Integrating Activity.
- b) *Foresight Studies* will investigate the scientific needs in relation to a given class of infrastructure in Europe, in particular how best to make use of them, if necessary to improve them or to develop new ones, on the basis of the needs expressed by the relevant scientific community. These studies may also address issues like the regional or trans-regional impact. Foresight studies may also explore, where relevant, the possible role of the Framework Programme in relation to specific classes of research infrastructure, where appropriate in the context of specific research areas.
- c) *Exploratory Workshops* may enable potential partners in the field of research infrastructure that have little history of transnational co-operation to explore, in one or a series of meetings, strategies for a better co-ordination of their activities. This may lead, where appropriate, to the elaboration of a proposal for Community support under one of the schemes available in the Research Infrastructures action.
- d) *Round-Table Workshops* will bring together, in one or a series of meetings, operators of similar infrastructures financed individually for transnational access by this action for the purpose of co-ordinating work under the contracts and in order to exchange experience. Round-Tables will also seek to expand the research efforts of individual contractors so as to reach a critical mass, and to interact with representatives of users, including users from industry where relevant. On the other hand, Round-Tables that concern areas where an Integrating Activity is already active will be excluded, as they are to be supported as part of the corresponding Integrating Activity.

3.3.2 Forms of support

Accompanying measures will be implemented as *Specific Support Actions*.

3.3.3 Participants

A proposed study or workshop will demonstrate a level of European participation and interest beyond purely national or bilateral interest. Proposals submitted by a small number of participants (e.g. a proposal involving one national, or international, organisation), may however be considered for support provided they are duly justified by a clear European interest of the proposed study or workshop. For instance, such interest would be justified in terms of assessing the needs of potential infrastructure users within a Europe-wide context.

International European Interest Organisations (IEIO) and the JRC may participate under the same conditions as legal entities from Member States and Associated States.

Accompanying measures will be open to participation of entities from non-associated third countries, with special provisions for possible Community financial support for entities belonging to certain groups of countries, as indicated in the *Rules for Participation*⁹. Such extended partnerships would be particularly suited to the investigation of infrastructure related issues of world-wide relevance, for instance when assessing initiatives to construct new infrastructures of global nature, within which useful synergies or collaborations with European initiatives might be established.

3.4 Implementation Plan (2002-2003)

Within the total budget for this action (EUR 655 million), the indicative distribution of funds among the different support schemes and among the various calls for the period 2002-2003 will be as follows:

(a) *Transnational Access and Integrating Activities*

<i>Call No.</i>	<i>Publication date</i>	<i>Indicative budget</i>	<i>Indicative start of contracts</i>
Call a.1	End 2002 – early 2003	EUR 190 million	End 2003 – early 2004

(b) *Communication Network Development*

<i>Call No.</i>	<i>Publication date</i>	<i>Indicative budget</i>	<i>Indicative start of contracts</i>
Call b.1 - Grids	End 2002 – early 2003	EUR 50 million	Late 2003 – early 2004
Call b.2 - Géant	2003	EUR 100 million	Late 2004 – early 2005

(c) *Design Studies, Construction of New Infrastructures and Accompanying Measures*

⁹ See footnote 2.

<i>Call No.</i>	<i>Publication date</i>	<i>Indicative budget</i>	<i>Indicative start of contracts</i>
Call c.1	Mid 2003	EUR 70 million	Late 2004 - early 2005

(Accompanying Measures will attract a maximum of EUR 1 million.)

A more detailed outline of the above Calls can be found in section 3.5. A more extensive description of the specific issues to be addressed during the evaluation of proposals, for each of the support schemes, can be found in Annex B.

The remaining budget appropriations for this action will be attributed to subsequent calls, which will be published following updates to the Work Programme.

3.5 Call Information (2002-2003)

➤ *Call a.1: Transnational Access and Integrating Activities*

1) *Specific Programme* : Structuring the European Research Area

2) *Activity* : Support for Research Infrastructures

3) *Call title* : Transnational Access and Integrating Activities

4) *Call identifier* : ¹⁰

5) *Date of publication*¹¹ : 17 December 2002

6) *Closure date(s)*¹²: 15 April 2003, at 17h00 (Brussels local time)

7) *Total indicative budget* : 190 Million €

Instrument ¹³	€(millions)
I3	190
CA and SSA	

8) *Areas called and Instruments* :

Area	Instrument
Area 3.2.1: Transnational Access	SSA
Area 3.2.2 : Integrating Activities	I3 and CA

9) *Minimum number of participants*¹⁴ :

¹⁰ The call identifier shall be given in the published version of this call.

¹¹ The Director-General responsible for the publication of this call may publish it up to one month prior or after its envisaged publication date.

¹² When the envisaged date of publication is either advanced or delayed (see previous footnote), closure date(s) will be adjusted accordingly.

¹³ I3 = Integrated Infrastructure Initiative; CA = Coordination action; SSA = Specific support action

Instrument	Minimum number of participants
I3 and CA	<u>3 independent legal entities from 3 different MS or AS, with at least 2 MS or ACC.</u>
SSA	1 legal entity from a <u>MS or AS</u>

10) *Restriction to participation* : None

11) *Consortia agreements* :

- Participants in I3 are required to conclude a consortium agreement.
- Participants in CA and SSA resulting from this call are not required to conclude a consortium agreement.

12) *Evaluation procedure*:

- The evaluation shall follow a single stage procedure
- Proposals will not be evaluated anonymously.

13) *Evaluation criteria*: See Annex B1 of the Work Programme for the applicable criteria (including their individual weights and thresholds and the overall threshold) per area and instrument.

14) *Indicative evaluation and contractual timetable*:

- Evaluation results: estimated to be available within some 4 months after the closure date
- Contract signature: it is estimated that the first contracts related to this call will come into force before the end of 2003.

➤ ***Call b.1: Communication Network Development - Grids***

1) *Specific Programme* : Structuring the European Research Area

2) *Activity* : Support for Research Infrastructures

3) *Call title* : Communication Network Development - Grids

4) *Call reference number/identifier* : ¹⁵

¹⁴ MS = Member States of the EU; AS (incl. ACC) = Associated States; ACC = Associated candidate countries.

Any legal entity established in a Member State or Associated State and which is made up of the requested number of participant may be the sole participant in an indirect action.

¹⁵ The call identifier shall be given in the published version of this call.

5) *Date of publication*¹⁶ : 17 December 2002

6) *Closure date(s)*¹⁷ : 6 May 2003 at 17h00 (Brussels local time)

7) *Total indicative budget* : 50 Million €

Instrument ¹⁸	€(millions)
I3	50
CA and SSA	

8) *Areas called and Instruments* :

Area	Instrument
Area 3.2.3: Communication Network Development – Grids	I3, CA and SSA

9) *Minimum number of participants*¹⁹ :

Instrument	Minimum number of participants
I3 and CA	3 independent legal entities from 3 different MS or AS, with at least 2 MS or ACC.
SSA	1 legal entity from a MS or AS.

10) *Restriction to participation* : None

11) *Consortia agreements* :

- Participants in I3 are required to conclude a consortium agreement.
- Participants in CA and SSA resulting from this call are not required to conclude a consortium agreement.

12) *Evaluation procedure*:

- The evaluation shall follow a single stage procedure
- Proposals will not be evaluated anonymously.

¹⁶ The Director-General responsible for the publication of this call may publish it up to one month prior or after its envisaged publication date.

¹⁷ When the envisaged date of publication is either advanced or delayed (see previous footnote), closure date(s) will be adjusted accordingly.

¹⁸ I3 = Integrated Infrastructure Initiative; CA = Coordination action; SSA = Specific support action

¹⁹ MS = Member States of the EU; AS (incl. ACC) = Associated States; ACC = Associated candidate countries.

Any legal entity established in a Member State or Associated State and which is made up of the requested number of participant may be the sole participant in an indirect action.

13) *Evaluation criteria*: See Annex B1 of the Work Programme for the applicable criteria (including their individual weights and thresholds and the overall threshold) per area and instrument.

14) *Indicative evaluation and contractual timetable*:

- Evaluation results: estimated to be available within some 4 months after the closure date.
- Contract signature: it is estimated that the first contracts related to this call will come into force at the end of 2003.

➤ **Call b.2: Communication Network Development - Géant**

1) *Specific Programme* : Structuring the European Research Area

2) *Activity* : Support for Research Infrastructures

3) *Call title* : Communication Network Development - Géant

4) *Call reference number/identifier* : ²⁰

5) *Date of publication*²¹ : 6 May 2003

6) *Closure date(s)*²² : 2 September 2003 at 17h00 (Brussels local time)

7) *Total indicative budget* : 100 Million €

Instrument ²³	€(millions)
I3	100

8) *Areas called and Instruments* :

Area	Instrument
Area 3.2.3: Communication Network Development – Géant	I3

9) *Minimum number of participants*²⁴ :

Instrument	Minimum number of participants
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²⁰ The call identifier shall be given in the published version of this call.

²¹ The Director-General responsible for the publication of this call may publish it up to one month prior or after its envisaged publication date.

²² When the envisaged date of publication is either advanced or delayed (see previous footnote), closure date(s) will be adjusted accordingly.

²³ I3 = Integrated Infrastructure Initiative; CA = Coordination action; SSA = Specific support action

²⁴ MS = Member States of the EU; AS (incl. ACC) = Associated States; ACC = Associated candidate countries.

Any legal entity established in a Member State or Associated State and which is made up of the requested number of participant may be the sole participant in an indirect action.

I3	3 independent legal entities from 3 different MS or AS, with at least 2 MS or ACC
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10) *Restriction to participation* : In the case of the provision and enhancement of a research network backbone for all Researchers in Europe (GÉANT), the proposal must be collectively submitted by the legal entities in each Member State and Associated State in charge of operating the National Research and Education Networks (NRENs). NRENs from other countries might participate too, on a case by case basis. Legal entities created by the NRENs to contribute to the deployment of connectivity and services on a pan-European scale (e.g. DANTE, TERENA) can also participate.

11) *Consortia agreements* :

- Participants in I3 are required to conclude a consortium agreement.

12) *Evaluation procedure*:

- The evaluation shall follow a single stage procedure
- Proposals will not be evaluated anonymously.

13) *Evaluation criteria*: See Annex B1 of the Work Programme for the applicable criteria (including their individual weights and thresholds and the overall threshold) per area and instrument.

14) *Indicative evaluation and contractual timetable*:

- Evaluation results: estimated to be available within some 4 months after the closure date
- Contract signature: it is estimated that the contract related to this call will come into force at the end of 2004.

➤ ***Call c.1: Design Studies, Construction of New Infrastructures and Accompanying Measures***

1) *Specific Programme* : Structuring the European Research Area

2) *Activity* : Support for Research Infrastructures

3) *Call title* : Design Studies, Construction of New Infrastructures and Accompanying Measures

4) *Call reference number/identifier* : ²⁵

5) *Date of publication*²⁶ : 1 July 2003

²⁵ The call identifier shall be given in the published version of this call.

6) *Closure date(s)*²⁷ : 15 October 2003 at 17h00 (Brussels local time)

7) *Total indicative budget* : 70 Million €

Instrument ²⁸	€(millions)
SSA	70

8) *Areas called and Instruments* :

Area	Instrument
Area 3.2.4 : Design Studies	SSA
Area 3.2.5 : Construction of New Infrastructures	SSA
Area 3.3 : Accompanying Measures	SSA

9) *Minimum number of participants*²⁹ :

Instrument	Minimum number of participants
SSA	1 legal entity from a MS or AS.

10) *Restriction to participation* : None

11) *Consortia agreements* :

- Participants in SSA resulting from this call are not required to conclude a consortium agreement.

12) *Evaluation procedure*:

- The evaluation shall follow a single stage procedure
- Proposals will not be evaluated anonymously.

13) *Evaluation criteria*: See Annex B1 of the Work Programme for the applicable criteria (including their individual weights and thresholds and the overall threshold) per area and instrument.

14) *Indicative evaluation and contractual timetable*:

- Evaluation results: estimated to be available within some 4 months after the closure date.

²⁶ The Director-General responsible for the publication of this call may publish it up to one month prior or after its envisaged publication date.

²⁷ When the envisaged date of publication is either advanced or delayed (see previous footnote), closure date(s) will be adjusted accordingly.

²⁸ I3 = Integrated Infrastructure Initiative; CA = Coordination action; SSA = Specific support action

²⁹ MS = Member States of the EU; AS (incl. ACC) = Associated States; ACC = Associated candidate countries.

Any legal entity established in a Member State or Associated State and which is made up of the requested number of participant may be the sole participant in an indirect action.

- Contract signature: it is estimated that the first contracts related to this call will come into force before the end of 2004.



Research Infrastructures - Specific issues to be addressed during the evaluation of proposals for each of the support schemes

1 - Transnational Access

S&T excellence (*weight: 1; threshold: 3/5*)

The extent to which:

- the infrastructure is offering access to state-of-the-art facilities or services that are rare or unique in Europe;
- the services offered by the infrastructure and its research environment enable users to conduct high quality research (as measured also by past achievements).

Quality of the management (*weight: 0.5; threshold: 3/5*)

- The extent to which the infrastructure can provide external users with adequate scientific, technical and logistic support.

European added value (*weight: 1; threshold: 3/5*)

The extent to which:

- the infrastructure can attract potential users, in particular from countries other than the country where the operator of the infrastructure is established;
- the proposal represent good value for money in terms of amount of access, number of users from different countries and other expected impacts.

The evaluation of proposals, through the above criteria, for infrastructures involved in contracts for similar activities under earlier Framework Programmes will also take into account any ex-post evaluations conducted under those Programmes.

(Final threshold: 3.5/5)

2 - Integrating Activities

(i) Fundamental objectives of the Integrating Activity (*weight: 1; threshold: 3/5*)

Relevance to the objectives of the Integrating Activities scheme

- the extent to which the proposed programme provide an integrated service of Europe-wide relevance in its field.

Long-term sustainability and structuring effect

- the structuring impact of the proposal, in terms of the collaborative arrangements put into place and of the perspectives for their long-term sustainability.

Proposed activities of the Integrating Activity:

(ii) Networking activities (mandatory) (*weight: 1; threshold: 3/5*)

Relevance to the objectives of the networking activities

- the potential and overall coherence of the networking activities to enhance the services provided by the infrastructures concerned;

Quality of the plan for using and disseminating knowledge

- the capacity to use and disseminate the knowledge derived from all the activities of the Integrating Activity among operators/users of related infrastructures.

Quality of the management

The extent to which:

- the participants have appropriate management skills, assessed in terms of resources, competence and organisation of the overall consortium management;
- a clear justification is given of the corresponding budget, divided by tasks and by participants.

(iii) Transnational access activities (optional) (weight: 1; threshold: 3/5)

The criteria to be applied to each infrastructure offering access will be the same as the criteria for individual Transnational Access scheme, namely: **S&T excellence**, **Quality of the management** and **European added value** (see section 1 above). Finally, evaluators will assess the overall value of the whole range of proposed access activities, as a single block:

Relevance to the objectives of the access activities

- the extent to which the infrastructures giving access offer a coherent and effective set of high quality services to the scientific community.

(iv) Joint research activities (optional) (weight: 1; threshold: 3/5)

Similarly to the previous block of activities, the evaluation of joint research projects will start with an individual assessment of each specific project:

S&T excellence

The extent to which:

- the proposed project is scientifically and technologically innovative and represents a clear progress beyond the current state-of-the-art.
- the proposed research approach and technical programme adequately supports the stated objectives, in a clear and justified way,

Quality of the management

The extent to which:

- the project management and the competence of each partner are appropriate for the intended work;
- there is a clear description and justification of the corresponding budget, divided by tasks and by participants.

European added value

- the extent to which the results of the project are applicable and can improve access to the corresponding pool of research infrastructure in Europe.

Finally, evaluators will assess the overall value of the whole range of proposed research projects, as a single block:

Relevance to the objectives of the research activities

- the extent to which the proposed research projects offer an adequate optimisation of mutual synergies and maximise the potential impact on related infrastructures.

(Final threshold: 3.5/5)

3 - Communication Network Development

(a) For Communication Network Development I3s

Relevance to the objectives of the “Support for Research Infrastructures” action

(weight: 1; threshold: 3/5)

- The extent to which the proposed project is contributing to enable Europe's researchers to have access to a fabric of research infrastructures of highest quality and performance, and to promote their optimum development on a European scale based on the needs expressed by the research community.

S&T excellence *(weight: 1; threshold: 3/5)*

The extent to which:

- the objectives are sound, clearly defined and justified.
- the involved research infrastructures are of European interest, in terms of state-of-art equipment, facilities and services.
- any proposed joint research activity is scientifically and technologically innovative.
- the proposed approach is likely to enable the Communication Network Development initiative to achieve its objectives.

Potential impact *(weight: 1; threshold: 3/5)*

The extent to which:

- the proposed project is likely to have a structuring effect on European research in terms of the active participation of Europe's research infrastructures in the relevant domain and of a widespread interest by potential users.
- there is an adequate plan to ensure the optimal dissemination and use of the results.
- the proposed project is suitably ambitious in terms of prospects for the long-term sustainability of the collaborative structures put in place.

Quality of management *(weight: 1; threshold: 3/5)*

The extent to which:

- the organisation structure is well matched to the complexity of the proposed project and to the degree of integration required.
- the proposed management is of demonstrably high quality.

Mobilisation of resources *(weight: 1; threshold: 3/5)*

The extent to which:

- the proposed project does involve the critical mass of resources (personnel, equipment, finance...) needed to successfully carry out the different activities.

- the resources are convincingly integrated to form a coherent structure.
- the overall financial plan of the projects is adequate.

(Final threshold: 3.5/5)

(b) For Specific Support Actions related to Communication Network Development

Proposals will be evaluated on the basis of the standard criteria used for *Specific Support Actions*.

(c) For Co-ordination Actions related to Communication Network Development

Proposals will be evaluated on the basis of the standard criteria used for *Co-ordination Actions*.

4 - Design studies

European added value (*weight: 1; threshold: 3/5*)

- the extent of the European significance and interest of the proposed infrastructure, in particular in terms of the needs of potential users.

S&T excellence (*weight: 1; threshold: 3/5*)

The extent to which:

- the proposed new infrastructure is scientifically and technologically original and innovative;
- the proposed study or work is scientifically and technologically well structured, also in relation to the overall development plans of the new infrastructure.

Relevance to the objectives of the scheme (*weight: 1; threshold: 3/5*)

The extent to which:

- there is a clear scientific or technological need for the proposed feasibility study or technical preparatory work;
- the proposed study or work is capable of exploring the funding and, where appropriate, the regional dimensions of the proposed infrastructure.

Quality of the management (*weight: 1; threshold: 3/5*)

The extent to which:

- the project management and the competence of each partner are appropriate for the intended study or work.;
- there is a clear description and justification of the corresponding budget, divided by tasks and by participants.

(Final threshold: 3.5/5)

5 - Construction of New Infrastructures

European added value (*weight: 1; threshold: 3/5*)

- The extent of the European significance and interest of the proposed infrastructure, in particular in terms of the needs of potential users.

S&T excellence (*weight: 1; threshold: 3/5*)

The extent to which:

- the proposed new infrastructure is scientifically and technologically original and innovative. Would it advance the state-of-the-art in its field?
- the proposed project is scientifically and technologically well structured, also in relation to the overall construction plans of the new infrastructure.

Relevance to the objectives of the scheme (*weight: 1; threshold: 3/5*)

The extent to which:

- there is a catalytic and optimising effect of the proposed construction project, taking into account, where relevant, any future provision of services;
- the long-term sustainability, including its regional and transregional impact in cases where Structural Funds co-financing is planned, of the proposed infrastructure are clearly demonstrated, both in terms of initial investments and subsequent operation.

Quality of the management (*weight: 1; threshold: 3/5*)

The extent to which:

- the project management and the competence of each partner are appropriate for the intended study or work;
- there is a clear description and justification of the corresponding budget, divided by tasks and by participants.

(*Final threshold: 3.5/5*)

6 - Accompanying Measures

Proposals for Accompanying Measures will be evaluated on the basis of the standard criteria used for *Specific Support Actions*.

