The European Research Council

A Cornerstone in the European Research Area

Report from an expert group

Ministry of Science, Technology and Innovation
Copenhagen
December 15 2003

Preface

Following the meeting of the Council of Ministers (Competitiveness) on 26th November 2002, it was my privilege, as then President of the Council, to invite Professor Federico Mayor to chair a small group of experts who were to explore options for the possible creation of a European Research Council. It is therefore with great pleasure that I introduce this report submitted by the expert group.

This report is the result of the extensive and diligent work carried out by the expert group during the past year, and I am confident that it will constitute a substantial and comprehensive contribution to the further discussions on developing the European Research Area and the possible creation of a European Research Council.

I seize this opportunity to thank Professor Mayor, the members of the expert group, and the secretariat for all the hard work and careful deliberations that went into preparing this report. The writing of this report has been a truly impressive effort for which I am most grateful.

Copenhagen, December 2003

Helge Sander

Minister for Science, Technology and Innovation

Introductory letter

The European Research Council Expert Group (ERCEG) was set up in December 2002, during the Danish EU presidency, on the initiative of Helge Sander, the Danish Minister for Science, Technology and Innovation.

Its creation was a follow-up to the conclusions on the status of the European Research Area (ERA) reached by the Council of Ministers meeting on competitiveness, held in Brussels on 26 November 2002, and the recommendations on the basic principles of a possible European Research Council (ERC) agreed in October 2002 at a conference in Copenhagen organized by the Danish Research Councils.

The task of the Expert Group has been to further discussions 'on the purpose and scope of a European Research Council and exploring options for its possible creation'.

Important input to these discussions has come from many sources, including the EU Research Advisory Board (EURAB), the European Science Foundation (ESF), the EUROHORCs, the European Life Science Federation (ELSF), Euroscience, the European University Association (EUA), Academia Europaea, All European Academies (ALLEA) and EIROforum (a list of relevant documents is included among the attachments to the Report).

Several drafts and preliminary documents have been widely circulated and used in our consultations with national representatives from research ministries, scientific organizations and individual scientists. These consultations have guided the thinking of the Expert Group. There have been many variations in the conception of details and also some reservations, but we have perceived a strong and increasing support for the creation of an ERC.

According to its instructions, the Expert Group now delivers its report to the Danish minister. It is our understanding that he intends to circulate the report to the research ministers of the member states.

In this report the Expert Group presents its views on the need for a new European dimension to research funding and on the appropriate means for meeting this need.

A first outline of a *European Fund for Research Excellence* and a *European Research Council (ERC)* to manage the Fund are given in the Report. The tasks, the principles for its operation and the governance structure of the ERC are considered. Appropriate steps in creating and building up the ERC over time are also indicated.

Barcelona, 15 December 2003

Professor Federico Mayor

Chairman of the Expert Group

The European Research Council

A Cornerstone in the European Research Area

The European Union has identified the need to strengthen the competitiveness of Europe and to become a knowledge-based economy. In view of the importance of a strong research capacity for economic stability and growth, the Expert Group recommends a new European dimension for research funding.

Until now European added value has been defined as the collaboration of research teams in different countries. It is now time to bring a new definition of added value, one that incorporates the principle of allowing a researcher in any European state to compete with all other researchers on the basis of excellence. Competition in order to achieve real excellence in research should become an essential part of a new, forward-looking definition of European added value.

The European Fund for Research Excellence and the European Research Council

A *European Fund for Research Excellence* should be established by the Union. The Union should further create a *European Research Council (ERC)* to manage the Fund. The first and main task for the ERC should be *to support investigator-driven research of the highest quality selected through European competition.*

In doing, so the ERC should create and support nodes of excellence in European universities and research institutions, strengthening the knowledge-base that underpins economic, industrial, cultural, and societal development and thereby stimulating European competitiveness and innovative capacity at all levels.

The ERC should primarily be a funding body for basic research and should cover all fields of science, including the social sciences and humanities, using a flexible approach suited to the various fields of research. It should base its funding decisions on scientific criteria and use a rigorous and transparent peer review process in deciding which research proposals to fund. It should encourage interdisciplinary and risk-taking projects, especially in emerging research areas.

In designing the governance structure of the ERC it is imperative that it has full autonomy in research matters, granting decisions and funding policies, while being accountable for finance and mission to the Union and other sponsors. Effective interfaces need to be established with the research bodies of the member states and with other national and European research organisations, as well as with universities, research institutes and industry.

In order to have the desired impact, the ERC should during the first 3-5 years reach a grant volume of at least □ 2 billion a year. The purpose of the ERC will only be realized when the effects of its work are visible and evident in the member states.

Challenges for Europe as a knowledge-based economy

At the Lisbon and Barcelona summit meetings the Union declared that Europe should become the most competitive and dynamic knowledge-based economy in the world by 2010. In view of the present weak position of European research on the global scene, and the foreseeable lack of well-trained researchers in Europe for industry and other

sectors of society in the coming decade, new European approaches to strengthening research are urgently needed. Without a strong and structured European research landscape with nodes of real excellence there is a risk that industry will shift more of its R&D investment to other continents.

The Expert Group has surveyed the existing information on the quality and volume of the knowledge-base and has held wide consultations with national representatives and European research bodies. It has identified four distinct areas where initiatives at the European level are needed:

- *Excellence in basic research*
- *Recruiting, training and career development for researchers*
- *Infrastructures and shared resources*
- *Making better use of, and developing the scientific potential of, weaker regions*

In the first of these areas there is at present no truly European support scheme and a major European initiative is needed. Therefore the Fund and the ERC should be established. In the other three areas there are existing mechanisms at European level and these should be strengthened. The ERC, through its funding of research on the basis of excellence through competition, will also strengthen and promote progress in these other areas.

The ERC needs to develop a comprehensive and deep knowledge of the European research landscape in order to guide its own work. This knowledge and competence will also enable the ERC to provide advice on science policy issues as when requested.

Operational perspectives

Autonomy. The ERC must be granted full operational autonomy in all scientific and scholarly matters including funding policies and decisions. This is necessary to ensure the high quality of the work and for maintaining the ERC's credibility in the research community. The community should be fully engaged in the work, including its delivery system, and should provide expert advice, e.g. through international peer review.

Funding. The money for the European Fund for Research Excellence, and thus the main resources for the ERC, should come from the European Union. The Fund should be a specific item in the budget for the next EU Framework Programme. The intention is that the Fund shall be financed out of an increased R&D budget and thus not be created at the expense of existing, needed and well-functioning national or European R&D activities.

The ERC will actively seek funding for parts of its work from other sources, including public and private research funding bodies and the private sector. Resources will also come from non-member European countries if they want to participate in the work.

Accountability. The ERC must be accountable in financial matters and for its mission to the EU, other funding partners and sponsors.

Governance. An effective and efficient governance structure of the ERC will be vital. The organization should include a governing body (Senate), a board of executives and an advisory forum. The governing body will be the guarantor of the independence and carry the overall responsibility for the ERC, including nomination of the executives. The legal and institutional framework for the ERC should be chosen so that the conditions *sine qua non* of autonomy and accountability are met. Members of the governing body

and the executives must be chosen so that the needs of the organisation are met and not for furthering national or other particular interests.

The advisory forum will be an instrument for building links with the whole European scientific community, including both research funding and research performing bodies. It will be necessary to explore in greater depth suitable forms for the relationship between the ERC and other bodies.

Best international practice should be followed in developing funding procedures, management and administration so that, in all respects, the handling of applications and grants is streamlined and user-friendly.

The way forward

A *political commitment needs to be made by the European Union before the end of 2004* to establish a European Fund for Research Excellence and a European Research Council so that it can be incorporated into the Commission's proposal for the 7th Framework Programme early in 2005.

In order for the ERC to be fully operational when the 7th Framework Programme begins, it will be necessary to prepare for the organisation throughout 2005 and 2006.

The Commission, together with the member states, has to prepare for setting up the organisation and for the appointments to the governing body and executives.

A small *Scientific Implementation Committee*, consisting of eminent researchers and experienced research managers, covering broad subject areas, should be set up to assist and provide advice about the creation of the ERC.

In the process of gradually building up the ERC it will be necessary to explore in even greater depth the relationship between the ERC and the Framework Programme to ensure that academic-industry links and the transition from research to innovation are supported in the best way possible.

Establishing a unique profile for an ERC, and making it a successful way of funding the best researchers both within and outside Europe, will necessitate in-depth studies of successful and best practice in funding bodies both in Europe and the USA.

Care should be taken to plan for a consistent and long-term policy of evolution and growth and a policy for evaluating the programmes and activities of the ERC.

Annex 1

Explanatory comments

This annex contains some additional comments to the report and some additional background information which we think might be of use in the continued discussions.

The introduction

The present European system of funding basic research is far from optimal. At present, this is mainly the responsibility of the member states, which vary greatly in both resources and decision-making, and the inputs from the EU are very small. The overriding national perspectives lead to a tendency towards under-funding of research of European potential. Opportunities for critically important cooperation in basic research are not fully realized, as funding of projects involving collaboration across borders is difficult to achieve with a multitude of funding bodies, each serving mainly national interests.

A main purpose of the new funding scheme for European research should be to identify and support the very best researchers and research teams and ensure that they are adequately funded on a level that makes them truly competitive on a global scale. Such funding would at the same time help raise the overall standards in national research funding systems throughout Europe and in strengthening the use of other European resources. In addition, it may inspire and contribute to innovation-oriented research within the EU Framework Programmes and national programmes.

The European Fund for Research Excellence and the European Research Council

The mission of the European Research Council (ERC) is to promote excellence as a basis for social, cultural and technological progress throughout Europe by funding world class research.

The ERC should strengthen the ERA, especially in researcher-initiated endeavours. It should promote the highest quality standards through European competition for funding at an international level via competitive and transparent processes guided by international peer review. It should cover funding of all fields of science, including the social sciences and humanities, using a flexible approach suited to the various fields of research and for interdisciplinary research. Its main challenge is to put Europe at the forefront of international research.

By finding ways of identifying and funding the very best research, the ERC will increase excellence in research at all levels throughout Europe. Its working methods and choices of funding instruments must be built on a careful analysis of the strengths and weaknesses of the present European research system and its national components, and must be adapted to the situation in different research areas. The

purpose of the funding should be to put Europe in a leading position in a broad range of scientific areas.

The ERC will need to work with a set of funding instruments which are adapted to the task at hand, the particular objectives and the situation at the time, and the chosen area of research. However, the fundamental instrument will be to fund research teams of the highest quality, regardless of their national location, and chosen by international peer review of applications (bottom-up process).

By pursuing excellence in basic research, it is anticipated that positive effects will be obtained in relation to other objectives such as: improved competitiveness; improved recruiting, training and career development; awareness of needs for updating existing and establishing new shared resources and expensive facilities; a stronger knowledge base for participation in international research enterprises; and the strengthening of weaker regions. In the long run other instruments will undoubtedly be developed geared more specifically to respond to these objectives and to build a good knowledge base for the future.

As the universities are the evident and natural place for a large portion of this research the beneficial effects on the university research community will be evident. The role of universities both in conducting research, and in the education of future generations of researchers, is crucial for the ERA. The development of universities and higher education in general and the training of researchers are first and foremost a national concern, but by funding the best research based on its competitive funding mode, the ERC will raise standards of research, inspire the national research systems, and guide the education and training of future generations of researchers.

At a later stage in the development of the ERC, *additional tasks may be considered*, complementing or replacing existing national and European funding mechanisms. Some examples of *additional tasks, which have been suggested to us*, are:

- Programmes of support for a wider access to international, large-scale research programmes as well as to major European and international research facilities and infrastructures

- Programmes for research training, mobility and career development in order to increase the number and the quality of researchers for the future and recruiting those of high talent to Europe

- Programmes to inspire, guide and link the development of competitive research capacity in weaker regions, geographically or thematically

- Mechanisms for improved collaboration between national research funding organizations

With time the ERC will build up increasing experience and science-driven knowledge of the European and international research system and it will thus be natural to ask for the *advice of the ERC in many research policy matters*.

However, such expanded tasks will depend on the future development of research funding policies in Europe, and of course on a successful development of the primary task of the ERC.

Challenges for Europe as a knowledge-based economy

The Expert group has surveyed the existing information on the present situation in Europe with respect to the knowledge-base. We have found that a stronger European research and knowledge base is needed for the following economic, social and intellectual reasons:

- for long-term economic development and growth
- for a harmonious cultural and social development
- for the future of the great European scientific and intellectual potential

In these comments we expand on our general views on needs and challenges. *We do not believe that a European Research Council could or should take up all these issues at once*, but its work has to be seen in the light of the full spectrum of tasks, which has to be undertaken by the Union and its member states in order to strengthen the knowledge base in Europe.

Lisbon and Barcelona summits: Competitiveness

The European Union has realized the need to build a competitive and dynamic knowledge-based economy. This demands a strong research capacity and the Union has therefore begun to increase its efforts in this area. The quality and availability of new knowledge and expertise are preconditions for the future well-being of our societies. This is acknowledged in article 3.3 of the draft Constitution from the Convention that states that the EU shall promote scientific and technological advance.

Several broadly supported initiatives have been launched in recent years to strengthen the competitiveness of Europe. By the Lisbon declaration the European Union has acknowledged that, in establishing the European Research Area (ERA), there is a strong need to strengthen the knowledge base in order to make Europe the most competitive and dynamic knowledge-based economy in the world. This cannot be achieved without raising the level of excellence of European research through competition, strengthening academic-business links and substantially increasing the investments in R&D, as was acknowledged in the Barcelona declaration.

Excellence in basic research

The European research is not strong enough: it does not match the research performance of the USA. Evidence suggests that a gap has emerged between Europe and the USA in performance of research.

While the member states of the Union on average have comparable levels of scientific publication per head of population, the EU (calculated for the present 15 member states) is by far surpassed by the USA in the quality of scientific publications:

- The number of scientific publications per capita is slightly higher in the USA than in the EU (926 publications per million population in the USA compared

with 818 in the EU-15). But the ratio of highly cited scientific publications is much higher in the USA than in the EU (the USA has 1.64 % of the total number of highly cited papers as percentage of total number of scientific publications, Japan has 0.59 % and the EU has only 0.25 %).[1]

Another indication of a consistent, strong historical lead for the USA is the number of Nobel prizes:

- Out of the 101 Nobel prizes in chemistry, medicine and physics awarded in the last 15 years 68 went to the USA and only 23 to Europe.

This points to a serious difference between Europe and the USA in research performance. One reason (but surely not the only one) for this difference is that the volume of financial resources devoted to R&D is considerably higher in the USA than in the EU (GERD was 2.69 % of GDP in the USA compared to 1.93 % in the EU in 2002) and it is growing much faster in the USA (annual growth 1995 to latest available year was 1.53 % in the USA and only 0.32 % in the EU).

When European countries collaborate in research they can achieve the highest international quality and are able to take the lead. There are specific areas of research where there is a high level of excellence in Europe and there are areas of truly European collaboration. CERN, ESA, ESO and EMBL are all examples of successful European collaboration operating at the highest level of international excellence. CERN brings together scientists from 20 member states to work together in the world's largest particle physics laboratory and shows what can be achieved in fundamental research through European collaboration. The drive for intergovernmental agencies in disciplines such as these came from the need to build large, expensive facilities or to create critical mass in emerging areas of science.

However, for disciplines where there is no need for sharing large-scale facilities or other critical resources there are (with few exceptions) no comparable mechanisms for European level collaboration. The same is true for interdisciplinary and emerging areas of research.

Opportunities for creating excellence and for collaboration of basic research are thus not fully realised. Shared work over the borders is hard to fund; the need to negotiate a project with several financing bodies, each serving mainly national interests, is acting as a major deterrent. European funding in most disciplines and in interdisciplinary areas, supported by an open and transparent international peer review system, is largely absent. More importantly the very best research groups at the European level are not funded at comparable levels with their competitors in the USA and Japan.

Another example of this relative weakness is research aimed at solving major global or international problems. Individual European countries make valuable contributions to research on environmental challenges, climate change and the difficulties faced by developing countries, but these efforts need to be strengthened at the European level.

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[1] Towards a European Research Area: Science, Technology and Innovation – Key Figures 2002 (Luxembourg 2002), Figures 3.1.3 and 3.1.4. Of course publication statistics and number of citations are only a very approximate measure of scientific production and quality.

Recruiting, training and career development for researchers

The knowledge base depends primarily on talented and skilled people. The challenge is to strengthen the knowledge base both in numbers and quality: by targeting the researchers who can create excellence and competitiveness in private research-led companies, universities and research institutions.

There is a need to intensify and improve the training of new researchers of high quality for industry, society in general, the higher education institutions and the research institutes. Not only must large numbers of scholars and scientists be trained, but Europe must also take care to give the best of them a career in research, encouragement and esteem. Measures should be taken to develop career possibilities for both men and women. The best should be retained in Europe and be given adequate resources to allow them to take on important research challenges.

Given the foreseeable demographic development in the next ten to fifteen years, there will be a shortage of highly qualified researchers. Europe and its member states should train enough scholars and scientists and help create leaders for the research centres and research groups in the universities and research institutes. Without such nodes of excellence and vital and leading academic research centres there is a risk that European industry will shift more of its investments in R&D to other countries where the knowledge base is stronger.

While private investments dominate the total R&D effort, companies and private organizations are dependent on the public investments and the quality of the publicly funded research efforts. Only if public sources, national and European, create a broad base of trained people and first-class research establishments will the big private and research-dependent industries continue to invest in Europe to the necessary extent. National commitments to increased public investments in research, combined with and strengthened by a new European research policy for basic research, are therefore of paramount importance. There are several European initiatives to these ends, predominantly the Training and Mobility Schemes of the EU Framework Programme and the Marie Curie grants. But more has to be done.

At present the number of researchers in relation to the total labour force is much higher in Japan and the USA (9.3 and 8.1 per thousand in Japan and the USA respectively, compared with 5.4 in the EU-15). However, when it comes to training of new researchers the EU-15 (calculated on the present membership) is doing well (0.56 new S&T PhDs per thousand population in the EU compared with 0.48 and 0.24 in the USA and Japan respectively).[2] But Europe has difficulties to retain the best of them, to make the very best use of them and also to attract the very best from other parts of the world.

Infrastructures and shared resources

Europe has been very successful in some areas where it has established intergovernmental agencies (high energy physics, molecular biology, space, astronomy etc). However it is not sufficiently organised to respond effectively when new needs arise or to be a credible partner in new research areas. There are weaknesses in the present system for discussing and deciding on new investments in big facilities, and for updating existing facilities. At present, despite the encouraging

[2] Ibid., Figures 2.1.1 and 2.2.1.

and growing efforts of ESFRI (the European Strategy Forum for Research Infrastructures), such matters are largely being decided in isolation both by country and by subject and without systematic involvement of the research community. The consequence is that, while each investment may be well justified within a national and subject context, it may be less optimal seen from a wider European perspective and in comparison with other subject areas. Improvements in this have been made, but more is needed based upon ESFRI efforts and experiences.

Making better use of and developing the scientific potential of weaker regions

Areas of Europe where the R&D systems are less well developed at present will also gain by long-term programmes aimed at building a strong research base. In the short term, there is an evident tension between the principle of competition for excellence and building research capacity in areas and subjects where research is relatively weak. But by encouraging excellence in such areas, involving the best researchers in the effort, and by training young researchers in other European laboratories and university departments, standards can be raised. Incentives to attract highly qualified researchers to stay in, or return to, such areas should be created. The task of building broad and solid research bases in the different countries must, as at present, be a task for the national bodies, possibly also supported by the EU structural funds, European Investment Bank and other sources of funding.

Operational perspectives

Autonomy

The ERC must operate as an autonomous body with its basic expertise derived from the international research community. It is both advantageous and necessary to exploit the capacity for self-government of the research community. This will be essential if the ERC is to obtain trust and credibility within the research community and with society at large.

The ERC must work according to its own decisions, and keep its independence from national concerns or other particular interests. We believe that a certain measure of healthy competition between the various R&D funding organizations and a diversity of funding sources are desirable in order to achieve a highly competitive, risk-taking and innovative research system.

Funding of the ERC

The budget needed for the creation of the ERC should come from the European Union. How this can be done depends on the EU Treaty. As things stand at present, it will have to be via a specific item in the budget for the EU Framework Programme which could be entitled the *European Fund for Research Excellence*. Other European countries should be invited to participate. In this way it is possible to establish the ERC with reference to the EU budget, while keeping its management at arms-length from the Commission.

Additional resources for particular purposes should later on also come from other sources of funding (national or international research funding bodies, charities, private funding institutions) but the bulk of the funding must be from the EU. Crucial to the success of creating an ERC is that it is accompanied by a general increase in funding of R&D in Europe. Only if such an increase in funding is forthcoming, will

the purpose of the ERC be fully achieved. The ERC should therefore be created as an addition to existing and well functioning national or European R&D activities.

The suggested target of 2 Billion Euros a year for the funding level will give the ERC the desired impact. The total national funding of national research agencies in Europe is estimated to be in the order of € 40 bn per year. The ERC would then correspond to 5 % of this amount. It will also make the ERC comparable in size to some of the biggest research funding bodies in Europe.

Accountability

The ERC must be accountable to the European Union and other sponsors as a major new European entity and an important instrument for building up the ERA. The ERC must be accountable not only for the funds received and distributed by it, but also for its funding principles, its overriding priorities and its actions.

Governance

It is of the utmost importance that both researchers and politicians trust and have confidence in the new body.

The ERC will need a governing body which we propose is called the *Senate*, an executive body, *the Board of Directors*, and an advisory body, *the Advisory Forum*.

The members of the Senate should be highly respected personalities with a deep knowledge of research and research management and with a high standing in the political system and in society. The majority should be highly respected scientists and scholars. The members of the Senate should be appointed and act in their personal capacity.

A small Scientific Implementation Committee, consisting of eminent researchers and experienced research managers and covering broad subject areas, should be set up to give advice about the creation of the ERC. This includes nominations of the first executives and members of the Governing body.

The Senate will carry strategic decision-making functions. It will appoint the Chief Executive and the other members of the Board of Directors. The Senate will decide on the strategic plans and the overall priorities in accordance with the general guidelines from the sponsors.

The Senate shall approve of the principles of procedure for the operations of the ERC. It will ensure that the activities are carried out in accordance with the principles of scientific autonomy, academic quality assurance, and research-based priority setting. It will decide on the overall distribution of funds according to the budget lines. In fulfilling these functions, the Senate should allow for flexibility in implementing new initiatives. It will ensure that all operations are appropriately evaluated.

An important task for the Senate is to interact with the relevant spectrum of scientific and political institutions and representatives of European society. This may involve representative organisations for universities, national and European research organisations and national research councils.

The Advisory Forum should facilitate this interaction. It will give the Senate and the Board of Directors important feedback from the European research community and will be a channel of communication between the ERC and universities, research

institutes, national research councils, other funding organizations and European bodies of research such as the ESF. The Advisory Forum will also facilitate the establishment of non-permanent *committees* and *panels* of the highest academic level for the preparation of new funding initiatives, for peer review of proposals and for programme evaluation.

Evaluation and monitoring of performance are important for the development of the organisation and systematic learning from experiences, as well as for control of results. Programmes undertaken by the ERC should have well-defined objectives in terms of impact and results in order to allow for the systematic building up of experience, and for early correction of mistakes. New programmes should not be undertaken unless also a clear decision about the evaluation of the respective programmes has been made.

Institutional requirements

The legal framework for the ERC will ultimately depend on the outcome of negotiations between the Member States, the European Parliament, and the Commission. Nevertheless, we should like to emphasize that in any case the following requirements have to be met:

The ERC must be able to *operate independently* in order to establish its reputation as a research funding institution of highest quality and thus earn its credibility in the European research community and in society at large. The decisions of the ERC on research priorities and funding issues must be protected from any undue outside intervention.

With excellence as the ultimate goal of an ERC, the Board of Directors must be in a position to appoint committee members, advisers and evaluators irrespective of their country of origin or other non-research related considerations. In all research funding matters the Board of Directors should be accountable to the Senate, whilst for financial and other organisational matters there may be the need to deal with them in an appropriate institutional setting which gives the sponsors appropriate influence and control.

It will be vital for the success of the ERC that it can operate in a research-friendly, non-bureaucratic manner, e.g. by making grants and awards instead of negotiating contracts and by avoiding cumbersome auditing procedures.

Legal options

There may be several ways in which ERC can be set up such that it has legal status and that the conditions for autonomy and accountability are met.

One option is to incorporate the ERC as an *organisation in one of the EU member states* and apply the legal framework of that state for setting it up, while ensuring that it is accountable to the sponsors and that the financial responsibilities are met.

A second option is to set up the ERC as an *interagency body* or a consortium of national actors like national research councils and other appropriate bodies. The contribution from the EU could then be based on the principles outlined in §169 of the present treaty. It must be done in such a way that requirements for ‘juste retour’, national or others, are avoided.

A third option would be to establish the ERC as an *intergovernmental organization*, instituted by a set of European states according to a Memorandum of Understanding. Though this model has proven very useful in the past, cf. e.g. CERN and EMBC, it is hardly possible for this kind of body covering such a broad science policy objectives, as opposed to a single area of research.

A fourth option is to establish it as a *European entity*, such as e.g. an EU (executive) agency. This agency option will impose organizational, financial and auditory mechanisms and regulations on the ERC, which seems difficult to combine with the required autonomy. It seems also difficult to make the granting procedures simple and non-bureaucratic, as required by the research community.

New developments in the European legislation may open for other options which are better suited for the ERC. However, in order to get the ERC started a solution has to be found within the present treaty and frame of legislation.

The way forward

In starting up the ERC, great care should be taken to establish *a consistent and long-term policy of evolution and growth.* The best executives and members of the Senate and the Advisory Forum must be attracted and chosen independently of narrow national considerations. The new organisation must be given a stable support from its sponsors to develop and be able to maximize its efficiency without undue interference.

It is crucial for the credibility of an ERC that its implementation is a gradual process, with funding increased as the new organisation demonstrates its competence and ability to deliver results. During this transitional period the ERC will need to concentrate on instruments or areas of early focus where the most value added will be generated. A more detailed study of the European research landscape and building up of expertise along with the initial phase for the ERC can help shape its development.

Annex 2

Members of the Expert Group

Professor Federico Mayor, Chair	Professor at the Autonomous University of Madrid and President of the Foundation for a Culture of Peace, former Director-General of UNESCO
Professor Mogens Flensted-Jensen, Vice Chair	The Board of the Danish Research Councils
Professor Norbert Kroó	Secretary General of the Hungarian Academy of Sciences
Dr. Wilhelm Krull	Secretary General of the VolkswagenStiftung, Germany
Professor David J. McConnell	Professor of Genetics at Trinity College Dublin and Chairman of the Irish Times Trust
Professor Gérard Mégie	President of the Centre National de la Recherche Scientifique, France
Professor Helga Nowotny	Chair of the European Research Advisory Board
Dr John Taylor	Director General of Research Councils, UK
Mrs Myrsini Zorba	Member of the European Parliament, Member of its Committee on Industry, External Trade, Research and Energy, and the Committee on Culture, Youth, Education, the Media and Sport
Mr Peter Kind, Observer from the European Commission	Director for Structuring the European Research Area
Professor Peter Nijkamp, Observer from the Netherlands	Chair of De Nederlandse Organisatie voor Wetenschappelijk Onderzoek
Professor Dan Brändström, Secretary to the Expert Group	Director of the Bank of Sweden Tercentenary Foundation
Dr Olle Edqvist, Assistant Secretary	Head of International Relations at the Swedish Foundation for Strategic Research

Annex 3

Terms of Reference

At the 2467th Council meeting on COMPETITIVENESS (Internal Market, Industry, Research) in Brussels, 26 November 2002 the Council adopted the following conclusion:

11. INVITES the Member States, in collaboration with the Commission where relevant through CREST and other appropriate existing bodies, to strengthen the actions being undertaken to develop ERA further, in particular by:

    …

    - in co-operation with relevant national and European research organisations, continuing discussions on the purpose and scope of a European Research Council and exploring options for its possible creation;[3]

As a follow-up of this decision Mr Helge Sander, Danish Minister of Research, asked Professor Federico Mayor to set up and chair an Expert Group to present possible options for an ERC. He informed his colleagues at the Council about the group and its tasks:

> "At its meeting on November 26, the EU Council invited Member States and the Commission to continue discussions on the purpose and scope of a European Research Council (ERC) and explore options for its possible creation.
>
> An ERC is an important element of the European Research Area and the idea has by now gained such momentum in the scientific world that further concrete action should be taken in order to explore the different options for a possible ERC. Representatives of the Danish Research Councils, in consultation with other research organisations in Member States and at European level, have suggested setting up of a small group of experts. I give my full support to this way of proceeding.
>
> I have therefore invited Professor Federico Mayor, former Director-General of UNESCO, to chair a small expert group which in a year's time shall present possible options for creating an ERC. I have asked Professor Mayor to set up this group as soon as possible in close consultation with the organizers of the Copenhagen conference "Towards a European Research Area. Do we need a European Research Council?".
>
> I think the mandate of the expert group is given in the Council conclusions from November 26, and I have suggested to Professor Mayor to provide on that basis and as quickly as possible a workplan for the group. In order for you to follow closely the setting up of the group and its work, I would be grateful if you would inform me about the relevant contact person within your administration."

[3] 14365/02 (Presse 360), page 22

Annex 4

Acronyms and abbreviations

ALLEA	All European Academies
CERN	Centre Européen pour la Recherche Nucléaire (European Laboratory for Particle Physics)
EIROforum	European governmental scientific research organisations
ELSF	European Life Science Federation
EMBC	European Molecular Biology Conference
EMBL	European Molecular Biology Laboratory
ERA	European Research Area
ERC	European Research Council
ERCEG	European Research Council Expert Group
ESA	European Space Agency
ESF	European Science Foundation
ESFRI	European Strategy Forum for Research Infrastructures
ESO	European Southern Observatory
EU	European Union
EUA	European University Association
EURAB	European Research Advisory Board
EUROHORC	European Union Research Organisations Heads of Research Councils
GDP	Gross domestic product
GERD	Government expenditure on research and development
R&D	Research and development

Annex 5

References to literature and reports

Except where otherwise stated, these documents can be found at the website of the Expert Group (www.ercexpertgroup.org).

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