Do we need a European Research Council?

Copenhagen, October 7-8, 2002

Summary Report

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Preface

The vision of a European Research Area has given new strength to the idea of setting up a European research council (ERC). The discussion on an ERC began during the Swedish EU Presidency in the first half of 2001. To discuss and analyse the topic, the Danish Research Councils organised a conference in Copenhagen in October 2002.

During the planning of the conference, discussions on an ERC gained further momentum, creating strong interest in the event, which enabled us to put together a programme of eminent speakers and attract high-level participants. Unfortunately, we also found ourselves in a position of having to turn down requests for participation.

We are happy to see that EU ministers for research will be discussing the idea of an ERC at their next Council meeting.

The discussion at the conference was lively and everybody who asked for the floor got the opportunity to speak. We should like to thank the speakers, the workshop chairs, the members of the organising committee and all the participants for their contributions.

Jørgen Søndergaard  Mogens Flensted-Jensen
Chairman  Vice-Chairman

Board of the Danish Research Councils

Copenhagen, November 2002
MAIN POINTS

DO WE NEED AN ERC?

- A clear majority of the interventions at the conference found that the time had come to begin setting up an ERC which will fund and co-ordinate basic research at European level. A few interventions questioned the need for such a body.

WHY AN ERC?

- The Lisbon Summit set the goal that Europe should become the world's leading knowledge economy by 2010. New instruments of research funding are needed to enable Europe to catch up with its competitors.
- The EU and its member states will have to invest heavily over the next years to reach the target of the Barcelona Summit that EU R&D investments should approach 3% of GDP by 2010.
- Europe must be made more attractive for industrial R&D investment in order to increase industry's share of the total R&D investments in accordance with the Barcelona target.
- Research is increasingly collaborative across borders and in many fields there is a need to combine efforts and reach critical mass.
- Competition for funding on a European scale will stimulate the best research groups in Europe to perform even better and will help attract and retain the best young scientists.

BASIC CHARACTERISTICS OF AN ERC

An ERC will promote the excellence and visibility of European basic research. It should:
• be primarily a funding rather than an advisory body,
• cover all fields of science, including engineering, the humanities and the social sciences, using a flexible approach,
• base its decisions on scientific criteria and have a rigorous and transparent peer review process,
• be accountable to its funders, but autonomous in its operations and run by highly respected scientists.

Research capacity in weaker parts of the ERA should be strengthened by other means than an ERC.

FUNDING OF AN ERC

• In the longer term, ERC funding should come from "fresh money" rather than from the reallocation of existing funds.
• Funding through an ERC should demonstrate genuine added value.
• An ERC could be funded by the EU, national governments and possibly from private sources.
• A clear ownership of an ERC must be identified.

FIRST STEPS TOWARDS AN ERC

• There is a need for political endorsement of the idea of an ERC as a necessary element of the ERA.
• The development of an ERC must build on the trust of the scientific community.
• In an initial phase, maximum use should be made of existing EU, intergovernmental, national and other European resources and structures.
1 Introduction

On 7-8 October 2002, the Danish Research Councils hosted the conference *Towards a European Research Area: Do we need a European Research Council?* The purpose of the conference was to discuss whether, and under what conditions, setting up a European Research Council (ERC) could add value to the European Research Area (ERA). The discussion focused on the possible mission of an ERC, its funding instruments and areas, and its links to the existing research funding structure in Europe.

The conference had around 200 participants, representing national funding agencies for basic research, European-level research organisations, national governments and the European Commission. The representatives of the national funding agencies had been nominated by the member organisations of the European Science Foundation. Participation included 29 EU, candidate and other European countries.

The conference was chaired by Mogens Flensted-Jensen, Vice-Chairman, and Jørgen Sondergaard, Chairman of the Board of the Danish Research Councils. The organising committee of the conference included representatives of the European Science Foundation, the European Commission and the Swedish Research Council, in addition to the Danish Research Councils (see Appendix II).

There were keynote speeches by Helge Sander, Danish Minister of Science, Technology and Innovation, Gottfried Schatz, President of the Swiss Science and Technology Council, Keith Pavitt, Professor at the Science Policy Research Unit (SPRU), Philippe Busquin, Member of the European Commission, Kathie Olsen, Deputy Director of the OSTP, Executive Office of the President, USA, José Mariano Gago, former Portuguese Minister of Science and Technology, and Vassilis Kostopoulos, the Greek Ministry of Development.

The three conference workshops were chaired by Gudmund Hernes, Director of the International Institute for Educational Planning, UNESCO, Peter Gruss, President of the Max Planck Society, and Heidi Diggelmann, President of the Swiss National Science Foundation. There were five speakers in each of the workshops (see Appendix II).

The issues paper for the conference was written by Peder Olesen Larsen, University of Aarhus, in consultation with the organising committee (see Appendix I).
The organisers intended the conference to evaluate the pros and cons of setting up an ERC, clarify concepts and options, and make discussion on the topic as open and transparent as possible. Participants were encouraged to agree on some basic principles that should be respected by a possible ERC, were it to become a reality (see section 4).

The following sections will summarise the discussion at the conference. The main part of the issues paper and the conference programme are included as appendices.

A list of participants, the full issues paper, speeches, presentations and other relevant links and documents, including statements by European academies, can be found on the conference homepage:

http://www.forsk.dk/eng/eupresidency

2 Do we need an ERC?

A clear majority of the interventions found that the time had come to begin setting up an ERC. This would be an autonomous organisation for funding and coordinating basic research at European level.

A few interventions questioned the need for such a body, preferring other mechanisms to realise the ERA.

3 Why an ERC?

There was almost unanimous agreement that an ERC could help Europe realise its full scientific potential. It was considered deplorable that, generally speaking, Europe follows rather than leads global scientific developments. European science has serious problems in recruiting and retaining talented young researchers and in attracting corporate investments. A disproportionate number of European companies prefer to locate their R&D activities in the US in order to be close to centres of academic excellence in such fields as information and biotechnology.

It was also generally agreed that Europe suffers from the fragmentation of its research funding systems, leading to a lack of competition at continental level. In most scientific areas there are only limited, national ranking orders of research proposals. In this way scarce resources are invested in projects that would not have come out on top in a wider, European field of competition. Research proposals with similar goals are not brought into competition – or collaboration – with each other. It was stated that increased
European competition for funding could be particularly stimulating to the research systems of small countries.

Many participants found that Europe is less able than the US to organise large collaborative and interdisciplinary research projects where this would be scientifically advantageous. Excellent American research groups can more easily draw on a large pool of resources and partners for cooperation. In contrast, European researchers face obstacles in raising funds for research projects including partners in other European countries.

It was noted that, in accordance with consecutive EC treaties, the bulk of European-level research funding has been channelled by the Framework Programmes towards strategic and applied research for industrial competitiveness and EU policies. Although the Sixth Framework Programme will increase support for basic research, many participants pointed to a need for significantly more European-level funding for such research, and for an organisation and instruments better suited for the purpose. The point was made that increased European-level funding for basic research would also be valuable in promoting the balanced development of the full spectrum of science in candidate and other European countries.

Networking and mutual opening of national research programmes are central elements in building an ERA. But it has so far proved a slow and difficult process, and one which must be accelerated by new means. It was noted that many national funding agencies for basic research have few or no well defined research programmes suitable for such opening.

Many interventions emphasised that it is time to proceed from broad statements in favour of an ERC to the precise identification of needs within various scientific fields that could motivate setting up such a body. This would require a thorough evidence-based analysis of the gaps and weaknesses that an ERC would address and the specification and costing of alternative models.

4 Basic characteristics of an ERC

The discussion converged on some basic principles which should be met by concrete proposals for an ERC:
• **Scientific autonomy:** An ERC must have a high degree of autonomy and be run by respected scientists. Funding decisions must be based on scientific criteria and a rigorous and transparent peer review process.

• **Accountability:** Clear ownership of an ERC must be identified. An ERC must be accountable to its owners and society.

• **Clear objectives:** An ERC must have clearly defined objectives, formulated in its statutes and a mission statement.

• **Adequate means:** An ERC must have the instruments necessary to accomplish its mission and the resources to provide critical mass in its fields of activity.

• **Added value:** Funding through an ERC should demonstrate genuine added value and avoid unnecessary duplication of existing mechanisms.

There was agreement that an ERC should concentrate on funding academic research but also warnings not to draw the distinction between basic and applied research too sharply. The important points should be scientific excellence, a long-term perspective and acceptance of high risk.

The interventions pointed to a range of possible funding activities for an ERC, including post-doctoral and PhD fellowships, research projects, networks, conferences, centres of excellence, infrastructures, and networking and opening-up of national programmes. Many emphasised that transnational networks and consortia should not be enforced by an ERC but motivated only by scientific excellence. An ERC should seek to minimise administrative work for applicants and grant-holders.

Some participants expressed the view that an ERC, although primarily a funding agency, should also be competent to *advise* the Commission, national organisations and others on matters of science policy such as the siting of infrastructures. The results of its funding competitions would in themselves act as a stimulus to national research organisations. In addition, an ERC could be a centre of benchmarking and diffusion of best practices and play a role in networking funding agencies and creating ERA-NETS.

Some interventions emphasised that an ERC should *not* have responsibilities for carrying out research, for core funding of research institutes or for infrastructure operation. Also, research capacity in weaker parts of the ERA should be strengthened by means other than an ERC. There were suggestions, however, that during a
transitional phase it could offer special grants and fellowships for researchers from candidate countries.

It was argued that an ERC should perceive itself to be operating in a "European area of research and higher education". It should consider the implications of its funding decisions for the educational function of universities, especially for the implementation of graduate and doctoral programmes.

There was general agreement that an ERC should concern itself with all areas of science, including the humanities and the social sciences. It was argued that such broad coverage would increase an ERC's legitimacy in the scientific community as well as among European citizens concerned with social, cultural and ethical issues. Some also argued that there is a particular need for internationalisation within some fields of the human and social sciences. Funding levels and instruments, however, should be flexible according to the varying needs of scientific areas.

Many participants stated that an ERC should adopt a bottom-up approach responsive to research proposals from the scientific community. However, to avoid oversubscription and duplication, a degree of strategic priority-setting would be necessary. It was noted that the US National Science Foundation (NSF) practises a system of merit review based on scientific expert evaluation but also on considerations of geography, infrastructure and educational needs. It was also suggested that an ERC could learn from the experience gained by the Forward Look instrument of the European Science Foundation (ESF).

Although an ERC should avoid duplicating existing European structures and mechanisms, some degree of pluralistic competition might be productive. It was observed that, in the US, funding agencies compete to attract the best research proposals.

An ERC must be based on considerable scientific autonomy but must also be accountable to its funders and society in general. One suggestion for reconciling autonomy and accountability was by means of a governing council. This would consist of members nominated in their personal capacity by the EU, national governments, the scientific community, private foundations and other stakeholders. Another model suggested for an ERC, possibly for the shorter term, was to be an "agency of agencies". This would be a light superstructure resting on a number of pillars representing the national funding agencies.
Many suggested that an ERC should be organised in a flexible, problem-oriented way so as to complement the more permanent disciplinary structure often found at national level. This would enable a quick response in support of new emerging fields. In any case, openness and diversity of scientific approaches within the ERC should be ensured.

Some interventions pointed to NSF as a role model for an ERC. Others stated that this was unrealistic given that basic research funding would remain chiefly a national responsibility for the foreseeable future. This difference of opinion was reflected in attitudes towards the relationship between an ERC and the Framework Programmes. Some envisaged an ERC being primarily an "externalisation" of certain elements of the Framework Programme whereas others wanted it to be an independent and complementary organisation of about the same weight as the Framework Programme.

5 Funding of an ERC

In discussing the funding of an ERC, a distinction was drawn between the short and the long term. There was general agreement that an ERC must eventually have enough resources to make a significant impact on the excellence and visibility of European basic research across the board. Many stressed that "we should not set up another insignificant body" offering "partial solutions".

It was also generally agreed that the critical amount of resources for an ERC must come primarily from the allocation of additional funds for European research rather than from the reallocation of "existing" national or European research funds. Many considered "fresh" money to be "a vital lubricant for the defragmentation of European research", without which the idea of an ERC loses much of its interest.

Several participants stated that national funding agencies must invest some of their "normal" funds in the ERC to demonstrate commitment. The attitude that "an ERC would be fine as long as it’s somebody else's money" would not suffice. Initially, a national funding agency could decide to fund only research performed in its own country, as is the case with ESF's EUROCORES. Later, national funds could be pooled, as in the EMBO fellowship programme or EUROHORCs' proposed European Young Investigator Awards. There could also be a shift from à la carte funding and participation (variable geometry) to contributions to a general budget.

Some proposed that the Framework Programme be split into an innovation agency and an ERC. However, many found this politically and legally unrealistic, preferring a stepwise approach drawing on the funding opportunities furnished by the Framework
Programmes. This could take the form of partnerships, "externalisation" or grants. It was stated that the Commission has already outsourced some programme elements (Marie Curie host fellowships, SME collective research) and would like to go further along that road if an appropriate pan-European organisation existed.

Many advocated a principle of mixed funding for an ERC. To motivate the national funding agencies to transfer funds, these must be supplemented from other sources – and vice versa. A diversity of funding, including possibly private sources, could also increase the autonomy of an ERC, making it more robust in the face of political developments at national and EU level. There was some scepticism, however, as to whether companies would find it profitable to invest in an ERC focusing on long-term basic research of a general nature.

National contributions to an ERC could also prove very hard to achieve. There were proposals that a percentage of the proceeds from national lotteries should be set aside for the purpose or that R&D investments should be exempted from the requirements of the EU's stability and growth pact.

6 First steps towards an ERC

A keynote speaker proposed that a small group of highly respected and politically astute scientists should be set up and charged with presenting a clear vision of an ERC, without any constraints. This vision should then be discussed by the politicians, and finally the administrators should be involved. There should be no mixed committees "producing a camel rather than a horse". Finally, the president of the ERC should be appointed and given as much freedom as possible to select an executive council and form an organisation.

Many pointed to an urgent need for political endorsement of the idea of an ERC. This should be set in the context of the Lisbon process, the ERA and the EU commitment to increased R&D funding. Political support could be difficult to achieve in the face of budgetary constraints but the issue must be put on the agenda before it is overwhelmed by the problems of enlargement. Appeals must be made to national governments, the European Parliament, the European Convention and the European Commission. The Danish Presidency should be encouraged to pursue the question of an ERC on the Council of Ministers. However, a concise document on an ERC would be needed to persuade the politicians.
There was some discussion about whether the Treaty needed to be changed to accommodate an ERC. Some felt that this was not strictly necessary and could be counter-productive by weakening the national obligation to fund basic science. Moreover, the case could be made that the promotion of excellent basic science would certainly benefit industrial competitiveness in the long term and so would be compatible with the Treaty.

It was stressed that there is not only a need to convince the politicians but also the grassroots of the scientific community. Many scientists will be sceptical about seeing funds transferred from the national organisations they know and respect to an uncertain new European system.

There was general agreement that the beginnings of an ERC must build on existing valuable mechanisms and structures of European research funding. The process towards an ERC could be divided into stages, but all disciplines should be included from the start to promote broad legitimacy in the scientific community.

Some pointed to ESF as the best platform for the development of an ERC. In that case, however, some found that ESF should be reformed. It was argued that its governing council must be opened up to other stakeholders and ESF must become more effective by being less consensual. It was also suggested that ESF should co-exist rather than be fused with an ERC.

There was general agreement that the development of an ERC should be driven by the needs of scientists so that they will feel a sense of ownership, as is the case with EMBO, EMBL and CERN. It could take the form of an expanding nucleus of voluntary programmes and the parallel negotiation of a formal body, the ERC.

There were warnings against the fragmentation of efforts towards an ERC. Therefore an interim "Council of an ERC" should be set up as an "umbrella" to direct the various initiatives towards a common goal.

It was announced that ESF will discuss the issue of an ERC at its Assembly on 28-29 November 2002, on the basis of a report by a High Level Expert Group. On 18-19 February 2003, the Federation of European Biomedical Sciences, EMBO and the European Life Sciences Forum will host a joint meeting on the topic. There was also an offer from the Polish Academy to organise a follow-up meeting. Finally, the pan-European conference for all sciences, scheduled by Euroscience and other research organisations to take place in Stockholm on 26-28 August 2004, was suggested as an
appropriate occasion for a report to the scientific community on the progress made towards an ERC.
THE OBJECTIVE OF THE CONFERENCE

There is a growing awareness that Europe needs a strong public research sector, especially a strong sector for academic research undertaken by universities and other research institutions. We need support for research for which no immediate practical application is envisaged. We need to promote the quality and competitiveness of academic research by supporting existing positions of strength as well as building capacity in new important research areas. We need to provide high-quality research training to make it attractive for young Europeans to choose a career in research and fulfil the need for high-level scientific manpower, especially PhDs. We also need to ensure an efficient flow of ideas and results between the public and the private sectors. European academic research must be an “interesting” partner for the private sector so that companies will locate their R&D activities in Europe. Finally, academic research is also important for policy-making and management within large areas of the public sector, including health and environmental issues.

The creation of a European Research Council (ERC\(^2\)) has been proposed as a means to improve the quality and increase the volume of academic research in Europe, and as a possible instrument for realising the European Research Area (ERA). The concept of ERA was launched by the European Commission and has been endorsed by the EU Member States. It aims at facilitating coherence, mobility and joint efforts across Europe in order to strengthen the global competitiveness of European research.

The objective of the conference is to analyse and clarify the concept of an ERC:

- What would be the basic principles defining an ERC?
- What should be its mission, its means and its structure?
- On what conditions and to what ends would an ERC be beneficial to Europe?

To address the last question, the conference must also discuss practical questions such as:

- Who should be the founding fathers of an ERC?
- From what sources should the funding of an ERC be provided, and how?
- What procedures could be adopted in setting up an ERC?

This paper will first describe the basic idea of an ERC and suggest the principles that must apply to such a structure. This will include a definition of the characteristics of a research council.

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\(^1\) The issues paper setting the discussion points for the conference was written by Professor Peder Olesen Larsen in consultation with the organising committee. Peder Olesen Larsen is adjunct professor in the History of Science Department, Aarhus University. He has been chairman of the Danish Council for Research Policy and Planning, as well as director of the Danish Research Directorate and of the National Research Foundation. Prior to that he was professor at the Department of Chemistry at the Royal Veterinary and Agricultural University. The background section of the original issues paper has been omitted in this version.

\(^2\) This paper will refer to a European Research Council (ERC) in the singular. However, this is not meant to exclude the possibility of creating several European research councils.
The paper will then address three key issues involved in setting up an ERC: The possible mission of an ERC, its funding instruments and research areas, and its links to the existing research funding structure. The issues are elaborated, including the suggestion of a number of discussion points, so as to provide a basis for discussion at the conference workshops. There will inevitably be some thematic overlap between the workshops.

The paper will introduce six scenarios for an ERC which should not be understood as concrete proposals but serve to exemplify the possibilities. A short section will consider some of the steps to be taken in the event of an ERC being judged an important issue to pursue. Finally, there will be a brief review of the recent discussion of an ERC in the context of ERA.

BASIC PRINCIPLES FOR A EUROPEAN RESEARCH COUNCIL

We would propose applying the following basic principles to any possible variant of a European research council:

• **Legitimacy**: An ERC must be established and funded by, as well as accountable to, the EU and the participating states. Scientists must be responsible for the work of an ERC.

• **Autonomy**: An ERC must enjoy autonomy to pursue the highest scientific quality in all its activities.

• **Clear objectives**: An ERC must have clearly defined objectives, formulated in its statutes and a mission statement.

• **Adequate means**: An ERC must have the instruments necessary to accomplish its mission and the resources to provide critical mass in its fields of activity.

Governments have established national research councils, or similar funding agencies, to obtain the advantages of letting the scientific community handle its own business. Research councils are financed from the public purse and have important roles in risk taking, funding of new research areas, and supporting multi- and transdisciplinary research. However, there are great differences in the decision-making structures of research councils, depending partly on their sphere of operation, partly on national and historical context. Funding decisions are always based on peer review but this can either be performed by the board of the council itself or used as input to the board, which then takes the decisions. The latter is often the case if the sphere of operation is very wide and the resources distributed are large. Many research councils will have a substructure of committees performing a large part of the peer review. In any case, a research council is presumed to have a board of active scientists, or at least a majority of active scientists, of high standing in the scientific community.

It is assumed that a research council will aim for high scientific quality in all its activities. The whole rationale of funding research through research councils and on the basis of peer review is that this is the best way to obtain scientific quality. However, scientific quality is a complex concept and peer review is not an infallible method for allocating research grants. It is necessary not only to base decisions on past performance but also to leave room for new ideas and hypotheses. If no risks are taken, only mainstream research will be supported. There is a danger of conservatism in any research-funding instrument.

It is always assumed that a research council is free to take decisions without external interference. However, at the same time a research council is bound to follow the rules laid
down by those who have created and funded it. For a research council to be kept accountable, it is necessary to consider how to scrutinise its work. There is no simple method for evaluating the effectiveness and efficiency of a research council, but conversely it is unacceptable that its work cannot be evaluated. It is a natural task for the creators and sponsors of a research council to ensure the introduction of proper review methods which do not jeopardise the autonomy of the council.

The above characteristics of national research councils should also apply to an ERC, but in addition such a structure must provide added European value. An ERC must offer benefits to all participating countries by supporting scientific quality throughout Europe. It must also respect the criteria of subsidiarity and complementarity by supporting an efficient division of labour and furthering synergy between European and national efforts.

THE CONFERENCE WORKSHOPS

Workshop 1: An ERC’s mission

The purpose of this workshop is to discuss the general arguments for and against an ERC and to outline possible alternative mission statements for such a structure.

An ERC must have clearly defined objectives and obligations, formulated from the outset in its statutes and a mission statement. Otherwise, it will be difficult or impossible for the board of an ERC to decide its work. An ERC must help in the creation of ERA and in raising the dynamism, quality and competitiveness of European academic research. An ERC must benefit European competitiveness, social development and quality of life.

However, more is needed to establish a clear mission. It must be considered how an ERC should relate to the spectrum of basic, strategic and applied research. An ERC must also strike a balance between relying on proposals from the scientific community and taking initiatives of its own. There are significant differences between the national research councils in these respects.

Quality and excellence is important for ERA, so the discussion thus far has focused very much on that. But Europe has more than 1000 universities and several thousand research institutions and there must be room and a role for all of them in ERA. They must all aim for international quality and an ERC must help them in this endeavour. But they cannot all attain scientific excellence since, after all, there is limited space at the top. An ERC’s work therefore needs to strike a balance between excellence and the need to reach out to and impact on research all over Europe. Among other things, this also involves considering whether an ERC should support only research involving international co-operation or whether it should also support research in individual countries, were it able to contribute to ERA.

Finally, the role of an ERC in the strategic co-ordination and opening-up of national research funding must be defined. One of the objectives of an ERC could be to support the opening-up of national systems and institutions and to empower them to operate at European level.

Thus the following questions must be addressed in discussing and defining the mission of an ERC:

- Could an ERC contribute to the quality and dynamism of European scientific research? Are there any weaknesses in European research funding which an ERC would help to remedy?
- Could an ERC benefit European competitiveness, social development and quality of life?
• Could an ERC help raise more funding for European research?
• Would an ERC have a role to play in the strategic co-ordination and opening-up of national research funding?
• Should an ERC adopt a responsive, bottom-up approach to the funding of proposals, or a more pro-active priority-setting approach? How should an ERC relate to the spectrum of basic, strategic and applied research?
• How could an ERC support both scientific quality and the wider diffusion of its benefits in Europe?

Workshop 2: An ERC’s funding instruments and research areas

The purpose of this workshop is to discuss the funding instruments and research areas of a possible ERC and to outline possible combinations of such instruments and areas, related to the overall mission of an ERC.

A research council must have not only a mission but also a defined field of activity and a strategy, as well as instruments for fulfilling its mission and implementing its strategy. Given the essential autonomy of a research council, it is partly the task of the council itself to decide on these matters. But especially when it comes to the choice of research area(s) there must be external influence, both by the ‘founding fathers’ and by society at large. Furthermore, discussing a possible strategy and possible instruments for an ERC will help clarify what an ERC could be and consider the advantages, and disadvantages, of such a structure.

From the start an ERC’s funding must be sufficient to equate with its mission. To maximise impact and achieve critical mass, its resources must not be spread thinly. There is always a risk of oversubscription: that is, of a serious gap between high-quality applications and available funds. It is therefore necessary to set priorities and select areas. Choices can be made according to scientific disciplines, or alternatively on the basis of the expected output of the funded research and its relevance for potential users. Emphasising multidisciplinary or transdisciplinary research is another option.

The initial choices will also determine the main balance between using a bottom-up and a top-down approach. Most of the proposals for an ERC have given priority to the bottom-up approach, to curiosity-driven or investigator-initiated research.

An ERC must aim at continuity in research funding and minimising paperwork. Scientists are often burdened by the paperwork required to obtain resources from national and international bodies and by the cumbersome administration of such funding. The frequent changes to the funding systems also pose a serious problem. Of course, there must be room for changed priorities but a stop-go policy is detrimental to research. In principle, at least, scientists can accept to lose in a fair competition but they should not accept a system which will not permit them to plan more than a few months ahead.

Decisions will have to be made on the appropriate funding instruments for implementation at European level. This will have to be considered in relation to the great European variety in institutional structures and in funding systems. It is also necessary to address the great differences across Europe in research potential as well as in research quality. An ERC must relate to the entire European research system and benefit the whole of Europe. What does this imply for the range of funding instruments to be employed?
An ERC should allocate grants on the basis of peer review. There has been some criticism of the peer review system used in the EU Framework Programmes and this will be improved under The Sixth Framework Programme. However, peer review is not a simple and well defined method. It is therefore necessary to decide in advance on matters such as the selection of peers, anonymity for applicants and reviewers, and the relationship between peer review and funding decisions.

There are further important questions to consider concerning the types of grants given and coverage of research costs: Should there be a limited number of grant types, and should there be ceilings and thresholds on grant size? Should grants cover only running expenses or also investments, for example in instrumentation? To what extent should salary costs be paid? Should there be a fixed rate for overhead costs, should overheads be paid according to national rules, or should overheads not be covered at all?

It will also have to be decided whether an ERC should aim for shared financing or for full financing of the research selected for support. With shared financing the impact of an ERC may be greater. But shared financing adds to the administrative burden and can act as a disincentive to effective and responsible follow-up procedures. A compromise may be for an ERC to share financing with the host institution but not with other funding agencies.

The Framework Programmes and many national research councils receive so many applications that their success rates are very low. This adds to the administrative burden on the scientists and also strains the peer review system. One way to avoid this is to target calls for proposals narrowly and to make this clear to all applicants. However, this will decrease the potential impact of an ERC. Another possibility is to adopt a two-step procedure in which applicants should only be asked to submit a full proposal if a summary proposal is successfully reviewed. But can the initial evaluation be done without the use of peer review?

Thus the following questions must be addressed in a discussion of an ERC’s research area(s) and funding instruments:

- What funding instruments would be appropriate for implementation at European level?
- Which research areas should benefit?
- What is the minimum level of resources that an ERC should have to carry out its mission?
- Would special instruments be needed to ensure geographical diffusion of an ERC’s benefits?
- What principles should guide an ERC’s peer review of project proposals?
- Which types of research costs should be covered, and to what extent

Workshop 3: An ERC's links to the existing research funding structure

The purpose of this workshop is to discuss and outline possible ways of organising an ERC, including its structural identification, basic organisation and relation to stakeholders and founders.

An ERC will have to operate in a system comprising many other players, including national research councils. It is important to define the role of an ERC in relation to these other players and to consider what role an ERC could play in co-ordinating and interacting with the other players.

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protagonists in European research funding. There must be a division of labour, but there must also be room for competition between the different bodies in terms of who derives the best value and impact for the money.

An ERC should not aim at supplanting national and other European funding systems, but an ERC could act as an incentive to national research councils to adjust their funding policies in order to attain quality at the international level. Therefore, if it spends its resources wisely, an ERC could eventually set an important example of best practice both for the European Union and for individual countries.

There are many research councils in the European countries and great variety in the funding systems for academic research. The research councils generally have longstanding experience and operate efficiently. The justification for an ERC must be that it can take up tasks which cannot be solved as efficiently by the national systems. For the foreseeable future the research resources available at European level, whether directly through the EU or through an ERC, will not amount to more than a fraction of the total resources available for public research in Europe. The existence of universities and other research institutions with a basic infrastructure and research staff with tenured positions, able to implement research grants, will continue to be a matter of national responsibility.

National research councils and similar bodies will also continue to exist. The creation of a continental European institution comparable to the US National Science Foundation (NSF) is not realistic for the time being. In addition it must be remembered that NSF provides only a small share of the resources available for American academic research. The National Institutes of Health (NIH), The Department of Energy and other public funding agencies, as well as a number of large private foundations, are also important sponsors of academic research. NSF has no monopoly, and both the American and the European experience is that no funding body should have a monopoly. An ERC cannot be all-embracing, then, and should definitely not engineer a “masterplan” for European academic research.

European research is part of the international research world and Europe benefits from co-operation with scientists and institutions outside of Europe. Relations with scientists and with the scientific system in the USA are of special importance. It is therefore necessary to consider how an ERC could simultaneously contribute to European competitiveness and openness towards the world beyond Europe.

In principle, an ERC can source its funding from the EU budget, national budgets and national research councils and other funding agencies. Examples of financing for European joint ventures in research are CERN, ESO, EMBL and ESRF, as well as the EU Framework Programmes, COST and EUREKA. If finance is obtained from national budgets or national research councils, it will be important to minimise earmarking of funds. A system of *juste retour* is incompatible with the autonomy of an ERC.

The following questions must thus be addressed in a discussion of an ERC’s links with the existing research funding structure:

- How should an ERC co-ordinate and co-operate with the other major players in European research funding, including the national research councils? How should the division of labour be determined?
- How could openness towards science outside Europe be ensured?
- How could both an ERC’s accountability and autonomy be achieved?
- What could be the sources and mechanisms of funding an ERC?
SCENARIOS

The examples listed below are illustrations of what an ERC could be like. They are not proposals, but hopefully they will help clarify the discussion about realistic possibilities for an ERC. The scenarios illustrate the different dimensions that need to be taken on board when creating an ERC. These dimensions include an ERC's scope of operations, its degree of autonomy in defining objectives and working methods, and the creation of a secretariat. A fourth dimension, not illustrated in the scenarios, is the difference between bottom-up and top-down approaches.

The secretariat question is included in the scenarios. Again, these are not proposals but illustrations. On the other hand they do illustrate possible ways of getting an ERC off to a quick start and building on existing competence in research administration and research council work in Europe. It must be stressed that there is never a clear line between the board or decision-making body and the secretariat of a research council. Therefore, the role of the secretariat must be an important issue in the discussion of an ERC.

For each scenario it must be considered whether it is supposed to be a lasting structure or just an intermediary solution on the way to a larger ERC covering a wider area of science.

Six illustrative scenarios for an ERC:

1. A European Science Foundation comparable to NSF in the USA. The board of the foundation both decides what areas to work in, and with what kinds of method. Such decisions must observe the need for congruence between mission, strategy and available resources. The foundation sets up its own secretariat.

2. An ERC working in disciplinary or strategic areas defined by the statutes but deciding independently what methods to use. The council sets up its own secretariat.

3. An ERC implementing a programme limited to supporting centres of excellence, networks of excellence and research training. The council sets up its own secretariat.

4. An ERC for Life Sciences. The council decides on methods independently. The secretariat is provided by EMBO on terms ensuring the autonomy of the research council.

5. A number of smaller ERCs working in limited areas defined by the statutes. Examples of areas could be demography, science of science, bioinformatics and nanotechnology. The secretariat is provided by ESF on terms ensuring the autonomy of the research council.

6. A number of European research councils, for example three, working in areas defined by the statutes. In principle, there should be no overlap between the areas of the councils, but they will compete on efficiency, results and impact. Following a call for tenders, the secretariats will be provided by e.g. Deutsche Forschungsgemeinschaft, CNRS and one of the UK research councils, on terms ensuring the autonomy of the research councils.
WHAT NEXT?

First it will be necessary to decide whether an ERC can be an advantage for Europe and European research and whether it can help achieve the broader goal of contributing significantly to the establishment of ERA. If this is not considered to be the case, alternative instruments should be discussed. But if it is decided to pursue the idea of an ERC, the next step must be to produce a sound proposal, or alternative proposals, addressing the many fundamental as well as practical issues. In this case, the basic principles established by this conference, and the alternative suggestions formulated by the workshops, can hopefully combine to inform the steps to be taken.

An ERC’s mission must be determined and the means necessary for an ERC to fulfil its mission defined. Subsequently, the questions of finance, “founding fathers” and accountability must be discussed. In addition, it is necessary to address a number of important operational problems concerning the composition and appointment of the council and its chairman or president, the possible need for a committee structure, the secretariat and the secretary general, the relationship between the council and the secretariat, and so on.

One possible avenue—albeit perhaps too slow a way of proceeding—would be to implement a pilot project for an ERC in a limited area. With appropriate modifications this initial model could be developed and improved, and subsequently copied or expanded to other areas. Such a stepwise approach would be similar to the approaches used previously in building up many national systems.

It will not be easy but the task of creating ERA is urgent. So if it is decided to attempt to establish an ERC it will be necessary to proceed with both swiftness and quality. Quality is crucial in performing research, but also in the political and administrative process of setting up research councils and in the activity of such councils.
The concept of the European Research Area (ERA) has given an impetus to the debate on whether European science would benefit from the creation of one or several European Research Councils (ERC). This would be an autonomous public funding structure for high-quality research at the European level.

The conference will contribute to the debate on the desirability of an ERC by bringing together high-level representatives of government and the scientific community to discuss and clarify the pros and cons of the issue.

It will ask the fundamental questions whether an ERC can be expected to add real value to the ERA, and if so, what its mission should be, which funding instruments and research areas would be appropriate, and how an ERC would fit into the existing research funding structure in Europe. What should be the basic principles of a possible ERC, and what options do we have?
This workshop will discuss what research funding instruments might be employed at the European level to strengthen the ERA, which areas of research would benefit from such funding, and if a need for European-level funding instruments in selected research areas would justify the creation of an ERC:

- What funding instruments would be appropriate for implementation at European level?
- Which research areas should benefit?
- What is the minimum level of resources that an ERC should have to carry out its mission?
- Would special instruments be needed to ensure the geographical diffusion of an ERC’s benefits?
- What principles should guide an ERC’s peer review of project proposals?
- Which types of research costs should be covered, and to what extent?

3. LINKS TO THE EXISTING RESEARCH FUNDING STRUCTURE

Ernst-Ludwig Winnacker, President, Deutsche Forschungsgemeinschaft
Jerzy Langer, Professor, Polish Academy of Sciences
Katherine Richardson Christensen, Vice-President, University of Aarhus
Wilhelm Krull, Secretary General, Volkswagen Stiftung
Peter Kind, Director European Commission

This workshop will discuss a possible ERC’s operational, organisational, and financial links to the existing research funding structure at national, European, and international levels:

- How should an ERC co-ordinate and co-operate with the other major players in European research funding, including the national research councils? How should the division of labour be determined?
- How could openness towards science outside Europe be ensured?
- How could both an ERC’s accountability and autonomy be achieved?
- What could be the sources and mechanisms of funding an ERC?
Programme

MONDAY, OCTOBER 7
Chair: Mogens Flensted-Jensen, Vice-Chairman, Board of the Danish Research Councils

08.30 - 09.30 REGISTRATION AND BREAKFAST

09.30 - 09.45 WELCOME by Helge Sander, Minister of Science, Technology and Innovation

09.45 - 10.10 A SCIENTIST’s VIEW
Gottfried Schatz, President, Swiss Science and Technology Council

10.10 - 10.35 A RADICAL PROPOSAL
Keith Pavitt, Professor, Science Policy Research Unit, University of Sussex

10.35 - 10.55 BREAK

10.55 - 11.15 THE EUROPEAN RESEARCH AREA
Philippe Busquin, European Commissioner for Research

11.15 - 11.35 THE AMERICAN RESEARCH AREA
Kathie Olsen, Deputy Director, OSTP, Executive Office of the President, USA

11.35 - 12.45 DEBATE

12.45 - 13.00 PRESENTATION OF ISSUES PAPER AND INTRODUCTION TO THE WORKSHOPS by the chairman

13.00 - 14.30 Lunch

14.30 - 17.00 PARALLEL WORKSHOPS

1. THE MISSION OF AN ERC
Chair: Gudmund Hernes, Director, International Institute for Educational Planning, UNESCO

2. FUNDING INSTRUMENTS AND RESEARCH AREAS
Chair: Peter Gruss, President, Max Planck Society

3. LINKS TO THE EXISTING RESEARCH FUNDING STRUCTURE
Chair: Heidi Diggelmann, President, Swiss National Research Council

19.00 - 23.00 Dinner at Axelborg

TUESDAY, OCTOBER 8
Chair: Jørgen Søndergaard, Chairman, Board of the Danish Research Councils

09.30 - 10.00 VISIONS ON THE FUTURE OF EUROPEAN RESEARCH POLICY
José Mariano Gago, Former Minister of Science and Technology, Portugal

10.00 - 10.30 REPORTS BY THE WORKSHOP CHAIRPERSONS

10.30 - 12.00 PANEL DISCUSSION
Chair: Dr Niels Busch
Panelists: Gudmund Hernes, Peter Gruss, Heidi Diggelmann, Reinder van Duinen, ESF, Helga Nowotny, EURAB, Reijo Vihko, EUROHORCs

12.00 - 12.15 NEXT STEPS: Dr Vassilis Kostopoulus, Ministry of Development, Greece

12.15 - 12.30 Closure by the chairman
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