



European Life Sciences Forum
Euroscience

Interdisciplinary meeting – A European Research Council for all sciences

Background document

Sponsored by

Stifterverband
für die Deutsche Wissenschaft

Tuesday 21 – Wednesday 22 October 2003
Irish Royal Academy • Dublin • Ireland



Table of Contents

Foreword	3
Recommended reading	5
Unfolding of the meeting	7
A. Setting the framework for the discussion	7
B. Instruments of the ERC	9
1. Research grants	9
2. Infrastructures and Institutions of Excellence	10
C. Delivery mechanisms of the ERC	11
D. Funding and organizational structure of the ERC	12
1. Who could/should establish and sponsor the ERC?	12
2. Administrative and governing structure of the ERC and interdisciplinary organization	12
E. Future developments	13
Acknowledgement	14

FOREWORD

The proposal of establishing a European Research Council (ERC) reflects two observations. First, in order to be competitive in terms of output and quality of research on a global scale, European research systems must set in place some order of transnational structuring, cooperation and competition. Second, there is no appropriate funding mechanism for basic, fundamental, investigator-driven research on a European level. The proposed ERC, as envisaged by most, is an answer to this challenge: complementary to the Framework Programme of the European Commission and the programmes of the national councils, it should be a new, autonomous instrument to promote and support basic research in all disciplines, from physics and mathematics to the social sciences and humanities.

At the heart of the creation and the operation of an ERC lies the participation of scientists. Indeed, basic research is a bottom-up, scientist-driven process and, consequently, scientists must be involved in the ERC planning process so that their needs and expectations are met. During the last couple of years, the debate on the ERC gained tremendous momentum. Furthermore, it progressively left informed circles to reach grass-root scientists, and contributions to the discussion coming from various sources blossomed. At this stage, however, coherence between the various scientific areas must be ensured and European scientists should speak with one voice on this matter in order to have an impact on the future ERC, its programme and mode of delivery. This is why the European Life Sciences Forum (ELSF) and EUROSCIENCE are organizing the present meeting, "A European Research Council for All Sciences". The aim of the organizers is to confront the positions of the various scientific areas on the ERC, their end objective being:

- To generate a document reflecting the views and possibly a common position of the whole scientific community on the creation of an ERC, its general principles and its structure, as well as the specific needs of each discipline with respect to research grants and infrastructures (ERC activities)
- To help create transdisciplinary dynamics in favour of the establishment of an ERC
- To ensure that those who will be responsible for founding and funding the ERC are well aware of the proposals and expectations of the European scientific community

The preparatory work for the establishment of the ERC will soon be completed and the discussions will move on to a more political level. The European Research Council Expert Group (ERCEG), the high-level working party appointed in November 2002 by the Danish Presidency of the European Union to explore options for creating an ERC and to determine its purpose and scope, will present its final conclusions in December 2003. Furthermore, on 8 October 2003, the European Commission indicated that an ERC could be up and running by 2005 if all goes according to plan. European Commissioner for Research Philippe Busquin announced that the Commission would publish a communication within the year endorsing the creation of such a body to fund and promote fundamental research at a European level. More details on the structure and financing of the proposed ERC would be provided in a second communication in 2004. The initiative of ELSF and EUROSCIENCE is thus very timely.

If the meeting delivers on its objectives, its conclusions may constitute a major contribution towards the establishment of an ERC. The present document details the unfolding of the meeting and, together with the references enclosed, it should help the meeting participants review their positions on the issues that will be discussed. We therefore encourage all participants to read it carefully in order to be able to actively contribute to the debate.

We wish you all a very fruitful meeting in Dublin,

Luc van Dyck

Executive Coordinator, ELSF
October 2003

RECOMMENDED READING

I. The ELSF Brochure "*European Research Council – the life scientist's view*" is based on consultations with the Life Sciences community and articulates its positions and proposals (<http://www.elsf.org/elsfbrochures/elsferc03.pdf>). The brochure also briefly outlines the historical and political framework of the debate on the ERC and, as such, may be informative for those who are not familiar with the topic.

The Brochure is based on two events:

1. An ELSF meeting hosted by UNESCO in Paris in February 2003 and attended by some 250 scientists from 20 European countries and other stakeholders, which:
 - Demonstrated the wide support from the life sciences community for an ERC
 - Highlighted how an ERC can contribute to the development and the cohesion of the European Research Area (ERA)
 - Identified domains where action is needed within the framework of an ERC

The Meeting Report summarises the elements of the discussion, notably 28 reasons for the establishment of an ERC (<http://www.elsf.org/elsferc/elsfercs1.pdf>).

2. A follow-up meeting organized by ELSF and hosted in Venice by the UNESCO Regional Bureau for Science in Europe in May 2003, which convened 65 prominent scientists and other stakeholders. The objective of the meeting was to come up with clear proposals on how to structure the ERC and organize its instruments and was centred on three topics that came up repeatedly during the Paris meeting:
 - Research grants
 - Support for research infrastructures and Institutions of Excellence
 - ERC delivery mechanisms

The structure of the Dublin meeting is derived from the discussions that took place in Venice. Therefore, we kindly invite you to read the background document and the report of the Venice meeting, which can be found under <http://www.elsf.org/elsferc/elsfercb2.pdf> and <http://www.elsf.org/elsferc/elsfercs2.pdf>, respectively.

II. EUROSCIENCE established a Science Policy Working Group that organized a debate amongst individual scientists. A summary of EUROSCIENCE members' positions can be found under http://www.euroscience.org/WGROUPS/SCIENCE_POL/ERC.pdf.

III. The European Science Foundation (ESF) set up a high-level working group chaired by Sir Richard Sykes to review the option of creating an ERC. The report of this group, "New Structures for the support of High-Quality Research in Europe", recommends the establishment of an ERC, and suggests possible activities for the future ERC as well as a tentative structural organization (<http://www.esf.org/publication/159/ercpositionpaper.pdf>).

IV. Other major stakeholders, such as EUROHORCS (European Union Research Organizations Heads of Research Councils), the European Research Advisory Board (EURAB), Academia Europaea and All European Academia, made public their position on the ERC. Consulting these contributions may be useful to prepare for the Dublin meeting. They have been posted on ELSF's website and can be consulted at <http://www.elsf.org/elsfercc.html>.

We also recommend reading the following publications, which review the history of the ERC debate and discuss more specific questions like the funding of the ERC:

A European Research Council: an idea whose time has come?

Gronbaek, D. (2003) Science and Public Policy (in the press)
(sent as an attachment to the meeting participants)

Footing the bill. Where will the money come from for the European Research Council?

van Dyck, L. (2003) EMBO Rep. 4, 544-546
<http://www.elsf.org/elsfercpubs/elsfercpuba1.pdf>

UNFOLDING OF THE MEETING

A. Setting the framework for the discussion

1. *Welcome address*

Professor Michael Ryan, President of the Royal Irish Academy

2. *Introduction - Aim of the meeting*

Luc van Dyck, Executive Coordinator of ELSF

3. *ERC, a support mechanism for basic research – general principles*

The establishment of a European Research Area (ERA) is considered an essential step towards the development of a knowledge-based economy in Europe. However, a common strategy for applied research is being implemented through the EC Framework Programme, but basic research so far remains the exclusive responsibility of the EU Member States. A European policy is also required to foster basic research, if the EU is to reach its objectives. This policy could materialize in the form of an ERC.

Professor Jean-Patrick Connerade, President of EUROSCIENCE, will discuss the need for a strategy to foster fundamental research on a European level and the general principles that should govern the actions of a possible ERC. What would be the added value of an ERC for Europe? How to achieve a European dimension? How to define basic research? What would be the characteristic features of an ERC (excellence, competition, networking and transnational requirements etc.) and how should they be implemented within an ERC? These are some of the questions that will be addressed to introduce the general discussion.

4. *Historical context of the ERC debate and mission of the ERC Expert Group*

In November 2002 the European Council of Ministers invited the Member States and the Commission to continue discussions on the purpose and scope of an ERC. Subsequently, Helge Sander, the Danish Minister for Science, Technology, and Innovation, established a high-level working party, the European Research Council Expert Group (ERCEG), to explore options for possibly creating an ERC and to determine the purpose and scope of this new instrument (<http://www.ercexpertgroup.org>). The ERCEG recently made known its preliminary views in a document intended for stakeholders' consultation

(http://www.ercexpertgroup.org/erceg_views.html). The final conclusions will be presented in December 2003.

Professor Federico Mayor, Chair of the Expert Group, Professor at the Autonomous University of Madrid and President of the Foundation for a Culture of Peace and Professor Mogens Flensted-Jensen, Vice Chair of ERCEG and Vice Chairman of the Board of the Danish Research Councils will discuss the political context of the debate on the ERC and the role of the ERCEG.

5. *Position of the European Science Foundation (ESF) on the ERC*

The report of the High Level Working Group established by ESF to review the option of creating an ERC will be presented by Professor Jerzy Langer, Polish Academy of Science, Member of the Working Group.

6. *How is our scientific community organized at a European level?*

Awareness of other scientific areas is usually quite low within the European scientific community; however, it is essential to get to know each other better in order to work together. Therefore, the organizers offered selected participants the possibility to make a short presentation about their scientific community and asked them to address the following questions:

- How is your scientific discipline structured on a European level? What are the influential organizations, associations or other channels that your discipline uses to communicate between scientists and with other stakeholders such as policy makers?
- Is the ERC a topic for discussion within your community? Has your community taken initiatives towards the establishment of an ERC?

The presentations will be given by:

- Prof. Christopher T. Whelan
Committee for the Social Sciences of the European Science Foundation
- Prof. Andreas Martens-von Salzen
European Chemical Society
- Prof. Martin Huber
President, European Physical Society
- Prof. Luc Lemaire
Vice-President, European Mathematical Society
- Prof. Clemens Sorg (pending)
Committee of the Medical Research Councils of the European Science Foundation

B. Instruments of the ERC

1. Research grants

Premises: The allocation of research grants is expected to be one of the core activities of the ERC. For the Life Sciences, ERC programmes should be based on the following principles:

- Investigator-driven, bottom-up approach
- Support for basic research of the highest level of excellence through open, competitive schemes
- Complementarity with EC and national research programmes

Professor Julio Celis, President of ELSF and Secretary-General of the Federation of European Biochemical Societies (FEBS), will present the position and proposals of the life science community and lead a discussion on the specific requirements of the various scientific disciplines with respect to research grants.

Participants are kindly asked to prepare the following questions with respect to their scientific area:

- Which kind of research needs to be supported? How is it identified?
- What should be the target group, if any, of ERC activities?
- What kind of support should be implemented (grants, fellowships etc.)?
- What are the specific grant requirements?
 - Scope
 - Eligibility criteria
 - Type and duration
 - Size and number of awards
 - Flexibility
 - Networking and trans-nationality requirements
- Other aspects that participants wish to develop (e.g. transdisciplinarity)

2. Infrastructures and Institutions of Excellence

Premises on infrastructures for the Life Sciences

Infrastructures, which may be better termed shared resources, are an essential prerequisite of competitive research in the Life Sciences. They are an essential part of strong basic research environments with a critical mass of scientific excellence. They promote the integration of knowledge across national and international borders and drive interdisciplinarity.

Specialized instrumentation and databases that constitute shared resources are costly and place significant financial burdens on countries or institutes, and are often inadequately funded. Furthermore, there is a perceived fear that funding shared resources would be at the expense of funding of small science in European universities, which for some is a top priority for an ERC. Shared resources, however, are essential instruments for modern science and provide added value that empowers small and large research groups alike. A pan-European approach to infrastructures is therefore required.

The approach of the European Commission, through its Framework Programme, is to support access to infrastructures. This is necessary but by no means sufficient: infrastructures are needed to allow others access to infrastructures. Hence, European shared resources in the life sciences need long-term support for their operation and further development to ensure that they are competitive on a world scale. The apparent conflict between funding basic research and shared resources must thus be resolved.

Dr Marco Malacarne, “Research Infrastructures” Head of Unit in Directorate B – Structuring ERA, EC Research Directorate, will present the European policy on research infrastructures and the role of the European Commission with respect to the access to and the creation of new infrastructures.

Professor Fotis Kafatos, Director-General of the European Molecular Biology Laboratory (EMBL), will present the life scientists’ viewpoint on the need for and the funding of research infrastructures, and lead the discussion on the specific requirements of the various scientific areas with respect to shared infrastructures. The discussion will also cover the support for Institutions of Excellence. For more information on these topics, participants are referred to the ELSF Brochure “European Research Council – the life scientist’s view”.

C. Delivery mechanisms of the ERC

Premises: A prerequisite to the success of the European Research Council within the European scientific community is that any future ERC has a lean and user-friendly administration and management structure. Furthermore, all decisions should be made on a scientific basis through genuinely competitive schemes, without political or non-scientific interference. Notably, many see the concept of “*juste retour*” as inappropriate and incompatible with genuine competition. The challenge is thus to put in place procedures which respond to these overarching requirements while maintaining the rigour and correctness of procedure which is necessary for all expenditure of public funds.

Professor Frank Gannon, Executive Director of the European Molecular Biology Organization (EMBO), will present the views of the life scientists’ community and lead the discussion on the following questions:

- Is a single Peer Review process appropriate for all scientific disciplines?
- Do all sections of science have a working model that could be transferred to (or copied by) the ERC?
- Should there be any requirements (e.g. interdisciplinary approaches to research)?
- How can the best interdisciplinary actions be identified and selected?
- Will a transnational requirement be necessary for all ERC actions?
- While respecting the fact that decisions of the ERC should be made on a scientific basis only, are special programmes needed for countries currently weaker in science output and support?
- How should the ERC start? In a sector-by-sector manner or with all areas simultaneously?
- What role, if any, should there be in the ERC for existing organizations?
- Irrespective of the funding source how can the autonomy of an ERC be preserved? What role should the EC Framework Programme and the national systems have in the delivery of the ERC?

D. Funding and organizational structure of the ERC

1. Who could/should establish and sponsor the ERC?

The issue of the founders and funders of the ERC is a crucial one. It will notably determine the process and date of establishment of the Council, the amplitude of its actions and the role of the other research funding and execution systems, *i.e.* national research agencies and the European Institutions, *vis-à-vis* the ERC. The legal framework in which the ERC would be established will also impact on its autonomy and mode of delivery, for instance in terms of controlling and auditing procedures.

These questions will be addressed in a panel discussion moderated by Jose Mariano Gago (ERCEG), with Achilleas Mitsos (EC), Enric Banda (ESF), Peter Tindemans (EUROSCIENCE), Reijo Vihko (Academy of Finland), Federico Mayor (ERCEG) and David McConnell (Trinity College, Ireland).

2. Administrative and governing structure of the ERC and interdisciplinary organization

It is probably the expectation of most scientists that the ERC be an autonomous body with considerable freedom of action and high flexibility in the delivery of its programmes. In this context, quality and accountability of the delivering structure are key issues. Furthermore, practicing scientists should be closely associated with and involved in the definition and delivery of the ERC programmes in order to ensure their pertinence and excellence. The administrative and governing structure will therefore have to be defined and composed with great care. The management of the structure(s) covering all scientific areas is another aspect that requires attention.

These issues will be addressed in a panel discussion moderated by Reinder van Duinen (ESF), with Bertil Anderson (University of Linköping, Sweden), Mogens Flensted-Jensen (ERCEG), Frank Gannon (EMBO), Ian Haliday (EURAB), Denis Weaire (Academia Europaea) and David Schindel (NSF).

E. Future developments

1. Views of the Commission on the ERC

Presentation by Dr Achilleas Mitsos, Director-General of the European Commission's Research Directorate

The European Commission is currently preparing a communication, to be released within this year, endorsing the creation of an ERC to fund and promote fundamental research on a European level. More details on the structure and financing of the proposed ERC will be provided in a second communication in 2004.

2. Plenary discussion on a follow-up strategy and concluding remarks

Conducting the present meeting, as successful as it might be, can neither represent an objective *per se* nor be the end of the cooperation of scientists towards the establishment of the ERC. Further joint initiatives, notably directed towards policy makers and the media, will have to be taken to ensure that the position and proposals of the European scientific community are widely disseminated and taken into consideration. This session, chaired by Julio Celis, President of ELSF, and Jean-Patrick Connerade, President of EUROSCIENCE, will address possible ways to reach this objective.

ACKNOWLEDGEMENTS

The organization of such a meeting would be impossible without the financial support of sponsors. Therefore, we wish to thank the following organizations for their generous contribution:

Stifterverband für die Deutsche Wissenschaft

The German foundation Stifterverband is a joint action of industry involving around 4,000 companies, industrial associations and individuals who wish to promote science and the humanities, research, and education. The foundation has set itself the task of contributing to improvements in the efficiency of the higher education and research system. It sees itself as a moderator promoting dialogue between the science and research sector and industry and the public at large. It draws attention to structural deficits in the higher education and research system, develops solutions and provides pump-priming funds to get them going. The Stifterverband finances its promotional programme exclusively with the charitable donations of its members and sponsors.

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ELSF (<http://www.elsf.org>)

The European Life Sciences Forum (ELSF), founded in 2000, is a coalition of independent organizations representative or supportive of the life sciences, biotechnology and biomedical research communities in Europe. Its mission is to increase their visibility and impact in the public and policy-making arenas, to advance research and to promote the contribution of scientists to European society.

EMBO (<http://www.embo.org>)

The European Molecular Biology Organization (EMBO) was established in 1964 with the aim to promote biosciences in Europe. Subsidiary to that general aim were concepts such as the development of a strong transnational approach to molecular biology, the identification of measures that can assist in the training of scientists in this area and the emphasis on scientific criteria for all of its activities. EMBO's actions are funded by contributions from 24 Member States.

FEBS (<http://www.febs.org>)

The Federation of Biochemical Societies, founded in 1964, is one of the largest organizations in European life sciences, with more than 40,000 members distributed among 36 Constituent Societies and 5 Associated Member Societies throughout Europe. FEBS mission is to promote, encourage and support biochemistry, molecular cell biology and molecular biophysics throughout Europe.

EMBL (<http://www.embl.de>)

The European Molecular Biology Laboratory (EMBL) is an international institution established in 1974 and supported by seventeen countries, whose mission is to conduct basic research in molecular biology, to provide essential services to scientists in its Member States, to provide high-level training to its staff, students, and visitors, and to develop new instrumentation for biological research. EMBL consists of five facilities: the main Laboratory in Heidelberg (Germany), Outstations in Hamburg (Germany), Grenoble (France) and Hinxton (UK), and an external Research Programme in Monterotondo (Italy).

EPSO (<http://www.epsoweb.org>)

The European Plant Science Organization (EPSO) is an independent body that represents 54 leading Research Institutions from 23 European countries. Its aims are to increase the visibility and impact of the European plant science community, to articulate the vision of the European plant science community for the future and advise on decisions of funding agencies at the European and national level on long term strategies to support plant science, to communicate with academia, industry and the general public to ensure the independent dissemination of plant science information and to contribute to the development of agriculture, horticulture, forestry and biodiversity.