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EUROCORES Scheme
European Collaborative Research

EUROCORES Scheme Review Panel Report

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The Appendices referred to in this report are available on request from the ESF office.

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Bonn, 30 March 2007

EUROCORES Scheme Review Panel – Final Report

Dear Professor Andersson,

I am pleased to herewith send you the final report of the EUROCORES Scheme Review Panel.

This report contains the results of the work carried out over the last few months by an independent panel composed of experts from various fields of science and science administration.

The panel took over its task knowing that the European Science Foundation is facing an important period in its history of more than 30 years. The EUROCORES funding scheme is the ESF's core activity for the support of collaborative science in Europe. Its success is a crucial pillar for the future of the European Science Foundation and therefore of key importance to its Member Organisations as well.

The report reflects the efforts of the panel to find out the role that EUROCORES is playing in the European research funding landscape and the role it could play in the upcoming years. Furthermore, it identifies the facets of the scheme that may be adapted in order to consolidate its uniqueness among European research funding instruments.

My colleagues and I are excited about the possibilities that a recalibrated EUROCORES scheme may offer to the scientific communities across Europe, and we hope that this report will be considered as a helpful part in the process of improving the conditions for funding research on a European level.

Sincerely yours,

Reinhard Grunwald
Review Panel Chair

DFG

Acknowledgements

The Panel would particularly like to thank Prof. Katarina Juselius, the Chair of the EUROCORES Committee for her very creative and constructive input to the Panel discussions at the meeting in Berlin and subsequently which convinced the Panel to include her idea for a future model for the EUROCORES Scheme in the final recommendations of the Panel.

For the support with the documentation on the EUROCORES Programmes and the Scheme, the Panel would like to thank the EUROCORES Scheme and Programme Coordinators at the ESF.

The Panel also would like to thank the very open discussion and good collaboration with James Stroyan from Technopolis who provided a very thorough analysis of the EUROCORES Scheme.

In addition, the Panel would like to thank the ESF staff assisting this Scheme Review, particularly Dr. John Marks, Dr. Svenje Mehlert, Dr. Jean-Claude Worms and Ms. Stéphanie Pery for the very professional and excellent support provided to the Scheme Review Panel.
Also, the support by the DFG office by Dr. Torsten Fischer and Ms. Claudia Wünsche was highly professional and very much appreciated by the Panel.

Executive Summary

I. Strategic level

There are important scientific questions which are best addressed in larger scale collaborative research programmes. The ESF European Collaborative Research (EUROCORES) Programmes offer a flexible framework for researchers from Europe to address such questions.

The EUROCORES Scheme was also initiated to bring together scientists from among the Member Organisations (MOs). It was intended to foster interdisciplinary scientific cooperation on a European level and improve the interaction between the national research and funding agencies. Meanwhile it has developed into a well accepted tool for this cooperation and interaction. The time has come to have a look at the merits of the EUROCORES Scheme and its potential for the future.

International scientific cooperation no longer is an exception from the rule of national research and cooperation, it has become the most fruitful and promising field and instrument for scientific endeavours. Not only has interaction between international partners grown beyond the European area, including now regular exchange and cooperation with Asian and American partners, the European orchestration of science and research has been developed intensively within the European Research Area (ERA), too. The Member Organisations of ESF are not alone the sponsors of the European basic science activities. The European Commission itself has joined the club of financiers for basic research and mobility schemes, too. Thus the *avant-garde* of a couple of years ago has to discuss its further progress and define the direction it should take.

One route would be to continue the existing activities and use EUROCORES as one of several options for ESF MOs and other funding agencies to interact on a European stage, next to ERA-NETs and multilateral programmes. The advantage is: No change, established mechanisms could – and should – be improved. The more daring path, better for the advance party to pick, however, would chose to develop EUROCORES into an instrument of choice for competition between not only scientists, but between the best and most creative partners on and behind the European stage aiming at improving the speed and substance of the innovation process. This decision could imply, in addition to common peer review, features as advanced as common pots and trust delegated with the decision powers to the joint peer review panels.

The EuroHORCs have already identified EUROCORES as instrument of choice for fighting the fragmentation of research in Europe in their paper on "Strengthening European Cooperation through Partnership – EuroHORCs Perspective on Networking and Coordination of National Programmes". In their replies to a letter sent out to the heads of ESF Member Organisations by the Evaluation Panel Chair, asking about the future perspectives of this funding instrument, 24 of them underlined their willingness to further support the scheme (out of 33 replies in total; see appendix 1 of this report which is available on request from the ESF Office). However, most of them pointed out that procedural improvements were to be introduced concerning the peer review and the model of financing. In addition, the results of the EUROCORES survey as part of the Scheme Review are giving a clear indication that the EUROCORES Scheme is a very well appreciated and valued instrument by the science community on the European level with almost 70% of the science community feeling that the EUROCORES Scheme is a useful instrument complement to other EU instruments. Especially the bottom-up approach for the identification of new topics is very much appreciated in a European Arena which otherwise seems to be dominated by top-down decisions (see Chapter 3.5 in Appendix 2 of this report which is available on request from the ESF Office). These results should encourage us to take a daring path in the future developments of the EUROCORES Scheme.

We shall therefore suggest taking the more daring, more complex path, also because it holds more promise and to our conviction is the only realistic one: To develop ERA into the most innovative region of the world, it is not enough to go on with what we installed some years ago. To not only stay competitive, but to improve our performance drastically, we have to change our mode of interaction. Only if European interaction and instruments help to improve the performance of our best scientists, research and funding agencies, we shall succeed to catch up with the speed and power of our Asian and American partners, who at the same time are our fiercest competitors.

This means, that the EUROCORES Scheme Review Panel does not see any alternative but to develop EUROCORES into an instrument of competition among the best on a European level to meet the challenges ahead.

II. Operative level

In order to address the above, 3 model procedures have been identified.

- **Model A**: Including elaborate EUROCORES theme proposals already identifying potential partners and projects, altogether taking not more than 9 months for a decision.
- **Model B**: Improvement of the current EUROCORES Scheme including the creation of a theme consor-

tium but keeping an open Call for Collaborative Research Project proposals, reducing the total time of the process to 15 months.
- **Model C**: ESF running the common Call for National Funding Organisations which want to collaborate in areas of strategic importance.

The efficiency of the EUROCORES procedures is a condition for the attractiveness and, thus, for the future of the whole funding instrument. The results of the EUROCORES survey and the outcome of the discussions between EUROCORES Scheme Review Panel members and scientists involved in the process highlight the long duration of the whole EUROCORES process, especially the decision making-time in the National Funding Organisations subsequent to the EUROCORES Peer Review Process.
The Scheme Review Panel shall suggest shortening the process as well as making it more predictable and transparent for the scientific communities.

The improved procedures aim to shorten the process by requiring more detailed theme proposals than is currently the case and by shortening the process through improved cooperation of ESF and MOs (in terms of valorisation of ESF review process; quicker decision by funding agencies about financial commitment).

Also, the theme selection process could be linked more strongly to other existing ESF foresight instruments such as ESF Forward Looks but also Exploratory Workshops or Science Policy activities, next to the open Call for themes which should be maintained.
The Scheme Review Panel also suggests that in order to improve the funding reliability of the selected projects a virtual common pot of 25 % of the committed funding should be established. This would in particular allow addressing the problem of components of collaborative projects that would go unfunded, despite the high quality, due to shortage of national funding of a country with many high quality projects. The creation of such common pots has been demonstrated in several of the ERA-Nets in which ESF MOs participate.

For all 3 models the following assumptions are taken:
- Creation of a (virtual) common pot, containing 25% of the total commitments of national funding agencies in order to ensure a basic funding of selected projects
- Peer review delegated to and carried out by the ESF is binding for funding agencies.

Proposed model A ("Juselius Model"):
- The whole application and review procedure takes no more than 9 months (from the deadline for applications to the date of the final funding decision taken by the ESF).
- This can be achieved in a one step procedure with an open call. The selection will look for clear evidence of added European value. Established fruitful cooperations will be considered as an advantage in the review process.
- Compared to the present procedure, the theme proposals should be replaced by more elaborated EUROCORES research outline proposals, containing
  – Presentation of the general EUROCORES research theme
  – Project leaders and description of CRP research proposals; outline proposals and applicants of potential integrated projects.

Proposed Model B:
(Improved EUROCORES Scheme)
- The application and review procedure takes no longer than 15 months (6 months for theme selection and 9 months for the projects selection).
- The present theme selection phase ("phase 1") and the programme selection phase ("phase 2") are maintained, but the procedural steps are shortened.
- Identification of new EUROCORES themes through an open Call remains
  – Links with national and ESF foresight instruments (e.g. "Forward Looks") is strengthened for early identification of themes
- EUROCORES theme proposals contain elaborated details about potential collaborative research projects, and a theme consortium is created to identify potential principal investigators who will submit proposals to a Call for proposals.
- Change of purpose of the "preparatory workshops" (information exchange with National Funding Organisations rather than finalisation of Call for proposals).

Proposed Model C:
(ESF matching national interests)
Strategic collaboration of National Funding Organisations approaching ESF for running a common Call for proposals (using EUROCORES Tool Box services)
- Scientific Scope of the Call defined by strategic decision in the National funding Organisations
- ESF support drawing up the Call for proposals providing advice on administrative procedures
- ESF publishes and runs the Call for proposals
- ESF manages the scientific networking and integration as appropriate.

1. Introduction

The EUROCORES instrument, by addressing scale and scope in researcher-led science, represents an attempt to fight fragmentation and duplication of research in Europe. The aim is to create an international framework for the coordination of national research funding and to support the production of new and challenging scientific results in European research, based on bringing together Europe-wide research capabilities. EUROCORES thus represents a major effort to create pan-European added value in the context of the future European Research Area (ERA), as this aspect will not be addressed by the upcoming European Research Council.

In order to improve on the existing EUROCORES Scheme and to resolve its identified shortcomings the ESF decided in 2006 to implement an independent review of its EUROCORES Scheme. A Review Panel was established to evaluate all aspects of the EUROCORES Scheme and to produce recommendations to improve the current procedures and better communicate science highlights and output of the EUROCORES programmes.

The Panel

The preparation of the EUROCORES Scheme Review started in the summer of 2006 when the ESF CEO, Prof. Bertil Andersson contacted Dr. Reinhard Grunwald (DFG) to invite him to chair the EUROCORES Scheme Review Panel. Dr. Grunwald accepted the invitation and together with the ESF CEO who was mandated by the ESF Executive Board, the membership of the Panel was finalised and a framework for the Scheme Review agreed. An overview of the Committee membership can be found in part 2.1 of this report.

The Task

The goal of this EUROCORES Scheme Review was to provide national and European research managers as well as ESF Member Organisations with views on critical elements such as the "pros and cons" of the EUROCORES Scheme in the building of the ERA and the appropriateness of the EUROCORES Scheme on the European research landscape, an analysis of the size and scope that is required to address global research challenges and a comparative assessment with other Europe-wide instruments. To address these elements, the Review Panel was asked to answer the following questions:

1) How to better fight fragmentation?
   a. from the science standpoint (specific scientific output of EUROCORES programmes, i.e. what research results were achieved which would not have been achieved without such programmes)
   b. from the researcher's standpoint (efficiency of the mechanisms; added value of the networking process)
   c. from the research funding organisations' standpoint

2) How does the EUROCORES Scheme compare to other mechanisms?
   a. different types: ERA-NETs, Coordinated Actions, Inter-Governmental Agreements or other mechanisms; do they serve similar goals?
   b. different structures & timeline; value for the science and for the scientists
   c. contribution/added value of the ESF EUROCORES Programme Coordinators

3) Implementation (how do the above translate into tools for improvement of the EUROCORES Scheme?)

1. Introduction

Supporting Documents

To support the Scheme Review, the external consultant Technopolis Ltd. was asked to conduct a survey on the EUROCORES Scheme, involving all stakeholders active in the EUROCORES Scheme and Programmes. The summary of the EUROCORES survey by Technopolis can be found in chapter 4 of this report. The complete EUROCORES survey report submitted by Technopolis can be found in Appendix 2 to this report which is available on request from the ESF office.

In parallel to the survey, the Chair of the Scheme Review Panel sent a letter to all ESF Member Organisations and other National Funding Organisations involved in the EUROCORES Scheme to ask their views on their level of satisfaction with the Scheme, their willingness to continue their support, the major strengths and weaknesses of the Scheme perceived by their organisations, and the improvement points still needed in the Scheme. A summary of the replies can be found in chapter 3 of this report. A complete compilation of the replies can be found in Appendix 1 to this report which is available on request from the ESF office.

As a third document supporting the Scheme Review the ESF has provided an Analysis report of the current status of the EUROCORES Scheme and Programmes. This analysis report can be found in Appendix 3 to this report which is available on request from the ESF office.

Meetings

Following the establishment of the Scheme Review Panel by the ESF CEO, the review itself lasted from November 2006 until March 2007, during which three meetings of the Review Panel were held. The first meeting was held in Bonn at the DFG headquarters, the second in Berlin at the DFG office and the third meeting in Strasbourg at the ESF headquarters. The ESF provided the Review Panel with the necessary assistance, financial and in logistics, as well as with adequate information and documentation. This final report provides the findings and recommendations of the EUROCORES Scheme Review Panel to ESF.

2. The EUROCORES Scheme Review Panel

2.1. The EUROCORES Scheme Review Panel members

The members of the EUROCORES Scheme Review Panel were selected on the basis of their scientific expertise and their experience with the EUROCORES Scheme. However, to ensure the independence of the Panel, no members were selected who had any responsibility in the decision making process of the EUROCORES Scheme or Programmes. Also, criteria of national and gender balance were considered.
The members of this Review Panel are deeply rooted in science, have an extensive knowledge of research programming at European level and solid knowledge about ESF Member Organisations and of the EUROCORES Scheme. Their profile includes

(a) understanding of the complexity of European and of international science funding systems;
(b) in-depth knowledge about research funding bodies as well as funding mechanisms;
(c) understanding of the relationship between the ESF and its Member Organisations; and
(d) understanding of the ambitions of the ERA.

Dr. Weber from the NSF was invited as non European member in the Panel providing an "outside" view on the system and instrument of European collaboration.

The Scheme Review Panel was composed of the following members:

Chair:
Dr. Reinhard Grunwald
Deutsche Forschungsgemeinschaft (DFG), Germany

Reinhard Grunwald is the Secretary General of the German Science Foundation (Deutsche Forschungsgemeinschaft, DFG). While studying law in Göttingen and Munich, he went to Berkley in 1970 to carry out an LL.M. on International Intellectual Property Rights. After finishing his second "state examination" to become a lawyer he started working on his PhD at the University in Göttingen which he finished in 1974. Subsequently he went to the Max-Planck Institute for Plasma Physics in Garching where he became the Director of Human Resources. In 1984 he became Administrative Director of the German Primate Center in Göttingen from where he changed to the German Cancer Research Center in Heidelberg as a Member of the Management Board. From there he moved to his present position at the DFG in 1996. Among others, he is a chairman of the 'Verein zur Förderung europäischer und internationaler wissenschaftlicher Zusammenarbeit e.V.' (KoWi, European Liaison Office of the German Research Organisations) and holds several positions in national and international committees. His main research fields are "Conditions and parameters for innovation" and "International University and scientific law".

Professor Carmen N. Afonso
Consejo Superior de Investigaciones Científicas (CSIC), Spain

Carmen N. Afonso is a Research Professor of the Spanish Scientific Research Council (CSIC) at the Institute of Optics. After studying Physics at the University Complutense of Madrid she started working on her PhD that she finished in 1979. She has held several positions at Complutense and Politecnica Universities of Madrid and CSIC where she became Research Professor in 1997. She is the leader of the Laser Group Group where more than 20 people are currently working and has led several research projects and initiatives both at national and international levels. Her research line is between optics and material science, aiming to both understand fundamental

processes in the limits of spatial (nanometer) and time (femtosecond) scales as well as to develop integrated optical waveguides for devices with improved performance. In addition, she has held several managing positions such as a Director of the Optics Institute or Head of Foreign Affairs Department of CSIC and has been very active in science policy as member of both evaluating and prospecting panels mainly in the international scene.

Professor Max Kaase

Max Kaase is Professor Emeritus of Political Science at the University of Mannheim and former Vice President and Dean of the School of Humanities and Social Sciences at the International University Bremen (IUB). After studying in Cologne and Mannheim he became project director of market research at Marplan in Frankfurt in 1960. In 1962 he returned to the University of Cologne before moving to Mannheim as a lecturer. In 1974 he became the first director of the Mannheim-based academic social science research institute ZUMA and in 1980, after declining an offer from the US, Professor of Political Science at the University of Mannheim. In 1993, he took the position of a Research Professor at the Wissenschaftszentrum Berlin für Sozialforschung in Berlin which he left in 2000 for the position at IUB. He has been a member of the German Research Council and a Vice President of the European Science Foundation, and was also President of the International Political Science Association. He has written extensively about political sociology and political theory among other subjects. He has received many awards and in 2000 was presented with the distinguished Federal Cross of Merit (Bundesverdienstkreuz am Bande) by the President of the Federal Republik.

Professor Jerzy Langer

Polish Academy of Sciences (PAN), Poland

Jerzy Langer is a Professor of the Polish Academy of Sciences at the Institute of Physics. After finishing his MSc. at the Physics department of Warsaw University in 1970, he started working on his PhD which he finished in 1972. Subsequently he went to Stanford University in 1972/73 for a Post-doc position after which he returned to Warsaw University. In 1978 he received a Dr.Sci (habilitation) degree and changed to the Institute of Physics of the Polish Academy of Sciences (PAN) in 1978, where he created and headed the Division of Solid State Spectroscopy. In 1987 his title of full Professor was confirmed by the President of Poland. Besides numerous short term visits abroad, he spent two yearly sabbaticals as invited professor at the Kepler University in Linz, Austria (1994/5) and at UMIST, Manchester, UK (1990/91). In 1999 he became the Advisor to the President of the Polish Academy of Sciences and for 2005 the Deputy Minister of Scientific Research and Information Society Technologies. Besides his very active scientific career in which he received many awards and honors, he has been very active in the area of science policy in many European and international institutions (a honorary vice-president of EUROSCIENCE) and HL advisory boards (EURAB, ISTAG). His research interests are solid state physics (mainly semiconductors), nanotechnologies and nonlinear optics.

Dr. Thomas A. Weber

National Science Foundation (NSF), USA

Thomas Weber is Director of the National Science Foundation's Office of International Science and Engineering (OISE). After having received a BS in Chemistry from the University in Notre Dame in 1966, he went to The Johns Hopkins University where he did his PhD in Chemical Physics in 1970. The same year he joined the AT&T Bell Laboratories where he stayed until 1987 when he joined the National Science Foundation as a Program officer for Theoretical and Computational Chemistry in the Chemistry Division. At NSF he has served as Director of Advanced Scientific Computing, Director of Information Systems, Executive Officer of Mathematical and Physical Sciences, and Director of Materials Research. In 1993 he served a detail in White House Executive Office of the President. He is a Fellow of the American Physical Society and has received the Meritorious Executive Presidential Rank Award. His research interests are in the field of computational chemistry and materials, using computer simulation to study air pollution, polymers, glasses, liquids, metals and semiconductor materials.

2.2. The EUROCORES Scheme Review Panel meetings

The Scheme Review Panel held three meetings:

The first meeting was held on **7 November 2006** in Bonn at the DFG headquarters.

At their first meeting, the Review Panel made a first round of analysis and decided it was essential to gather opinion about the EUROCORES Scheme from those National Funding Organisations who decided to fund their researchers via the EUROCORES Scheme, i.e. ESF Member Organisations and other research funding agencies. This was achieved by two means:

Firstly, the Chair of the Scheme Review Panel asked the views of these organisations on their level of satisfaction with the EUROCORES Scheme, their willingness to continue their support, the major strengths and weaknesses of the EUROCORES Scheme perceived by their organisations, and the improvement points still needed in the Scheme.

Secondly, the ESF initiated an invitation to tender for the execution of the EUROCORES survey in support of the Scheme Review among various stakeholders (theme proposers, EUROCORES Committees involved in the assessment process, Programme Review Panel members, successful project applicants (CRP leaders), unsuccessful project applicants, and funding organisations). The survey was then conducted by the independent consultant company Technopolis Ltd. who provided the Review Panel with an interim report at their subsequent meeting.

The second meeting was held on **28 November 2006** in the DFG office in Berlin.

At the second meeting of the Scheme Review Panel, the first results of the survey by the Panel Chair were presented and discussed.

In addition, Prof. Katarina Juselius, the Chair of the EUROCORES Committee attended the meeting as a guest. She participated actively in the discussions of the Panel and proposed her own idea of how the EUROCORES could be modelled in the future.

The Committee members at their meeting in Strasbourg on 7 February 2007 at the ESF main office
(top row from left to right: Torsten Fischer, DFG; Jean-Claude Worms, ESF; James Stroyan, Technopolis Ltd., second row from left to right: Adam Zielinski, visitor at the DFG; John Marks, ESF; Tom Weber, NSF; third row from left to right: Svenje Mehlert, ESF; Jerzy Langer, PAN; front row from left to right: Max Kaase, Reinhard Grunwald, DFG, Carmen Afonso, CSIC)

The third meeting of the Panel was held on **7 February 2007** at the ESF Headquarters in Strasbourg.

At the last meeting the preliminary results of the Technopolis survey were presented and discussed. The results of the survey as well as the compiled replies to the letter by the Chair were discussed in relation to the findings of the EUROCORES analysis report provided by the ESF.

Subsequently, future models for the improvement of the EUROCORES Scheme were proposed and discussed, including the suggestion made by Katarina Juselius. As a result of these discussions the Review Panel agreed on a set of findings and recommendations which are presented in the Executive summary of this report.

3. Summary of Consultation

of the National Funding Organisations participating in the EUROCORES Scheme by the Chair of the Scheme Review Panel

Following a decision of the EUROCORES Scheme Review Panel, its Chair Reinhard Grunwald sent out a letter to the 71 ESF MOs (CEO level) actively involved in the EUROCORES Scheme, asking about their feelings concerning the perspectives of the funding scheme. The questions asked in the letter on 14 November 2006 (see below) were as follows:

- **Question 1:** Are you generally satisfied with the EUROCORES Scheme and are you willing to continue your support as you consider it of importance in developing the European Research Area? (YES – go to questions 2 & 3; NO – go to question 4).
- **Question 2:** What are major strengths and interesting aspects of the EUROCORES Scheme for your organisation?
- **Question 3:** What are the necessary improvement points still needed in the EUROCORES Scheme?
- **Question 4:** Why are you dissatisfied with the EUROCORES Scheme? And what would be major steps needed to establish or restore your confidence in the Scheme?

By 1 February 2007, the DFG received 33 replies. A recapitulative table with comments was made available to the Review Panel at its Strasbourg meeting on 7 February 2007 (some more replies were received afterwards).

The contents of the MOs' replies can be summarised as follows:

A) Replies have been received by
- Austria: FWF
- Belgium: FNRS, FWO
- Bulgaria: Academy
- Czech Republic: GAČR
- Slovakia: Academy
- Denmark: FNU, FSE (FIST), FKK
- Estonia: Estonian Science Foundation
- Finland: Academy
- France: INSERM, INRA, ANR
- [Germany: DFG was expedient of the letter – thus no reply]
- Hungary: Academy
- Ireland: Enterprise Ireland
- Italy: INFN, CNR
- Luxembourg: FNR
- Norway: Academy
- Netherlands: NWO
- Poland: Academy of Sciences (on behalf of the Ministry)
- Spain: Ministry (MEC)
- Sweden: VR, FAS, Vinnova, FORMAS
- Switzerland: SNF
- UK: BBSRC, ESRC, EPSRC, MRC, British Academy

B) The answers received by the DFG contained the following general reactions:
- 25 MOs answered «YES, but…» (23 replies contained suggestions for improvements, with a varying level of detail).
- 2 negative replies (Danish FSE, Spanish MEC).
- 1 reply indicating that a review may be carried out to consider continued involvement in EUROCORES (Swedish FORMAS).
- 3 replies stated an impossibility to participate in the EUROCORES funding scheme due to structural reasons (French INSERM; the Hungarian Academy and the French ANR).
- 2 replies without statement. Swedish Vinnova: does not yet fund European programmes; British ESRC: to be sent later.

C) The MOs considered the following strengths and interesting aspects of the EUROCORES Scheme:

- The Scheme provides the opportunity to coordinate national funding activities.
- There is an ability to quickly enter joint international funding programmes.
- It networks national scientists and allows good and competitive collaboration with other nations.
- It provides benefit of multinational collaboration with scientific added value given to national funding with a European perspective.
- It also provides good international standard of competition and assessments; it offers the possibility to fund best national teams selected internationally.
- The programmes offer innovative and interdisciplinary approaches.
- EUROCORES provide a single procedure for all disciplines.
- The scheme provides potential input for national science strategy.

D) The MOs considered the following main improvement points:

- The process takes too long, it needs to be shortened.
- The procedures are too heavy and risk a duplication of national efforts.
- The funding process is too difficult and unreliable.
- There is no clear connection between the decision process in the Standing Committees, the EUROCORES Committee and the financial obligations in the MOs.
- The EUROCORES programmes do not always cover scientific priorities.
- EUROCORES programmes should be selected for topics which do not receive funding from elsewhere/ needs added value.
- The quality of the management carried out by ESF is improvable (information flow/communication with MOs, Peer Review).
- The scheme will have difficulties to come up with additional money for networking and collaboration.
- The programme would gain attractiveness and efficiency if a common pot model was introduced.
- There is a need for clearer guidelines as to how MOs can submit suggestions rather than just through the community.
- There is a need of better strategic coordination.

4. Summary of the EUROCORES Survey by Technopolis

This report sets out the findings from a survey carried out by Technopolis in the framework of a review of the European Science Foundation's EUROCORES Scheme by a dedicated Panel. The EUROCORES Scheme was established by ESF in 2001 and provides a framework for researchers from different European countries to collaborate in novel areas where scientific synergy offers the potential for significant advances. ESF's Member Organisations provide the financing for the programmes, which are developed in response to ideas prepared and submitted by members of the scientific community.

The survey was conducted in the period November 2006 to February 2007 and employed a mix of online questionnaires and telephone interviews. It was directed to a sample of 732 scientists and officials from across the Scheme's participant base, ESF's Committees and Review Panels, and the National Funding Organisations. The survey canvassed participants' general views on the EUROCORES Scheme, including its strengths and weaknesses and complementarity with other EU funding instruments. The Scheme's 'à la carte' funding model was investigated, as were the scheme's programme development and project review and selection processes. Views from the scientific communities on the successes of the EUROCORES programmes launched so far were sought, as were opinions of the quality of the management and coordination provided by ESF. Feedback was secured from a total of 401 individuals, a 55% response rate.

General perceptions of EUROCORES

The survey findings suggest that EUROCORES is generally well regarded by the scientific communities across Europe. It is described as a researcher-driven mechanism for building collaboration around questions of a fundamental, innovative, and inter-disciplinary nature. It is considered to support high quality work, and employ good processes.

EUROCORES is considered to be a useful complement to other ESF support mechanisms and a useful complement to other EU research funding instruments. It is perceived to be more open and flexible than other EU instruments in terms of the subject areas, types of project and types of networking activities supported. It is also described as more scientifically driven, more focused on fundamental research, less politically motivated, more suitable for collaboration between small teams, and less bureaucratic than other EU instruments.

EUROCORES is not well known within most of the respondents' scientific communities, due mainly to its small scale compared to other EU instruments and its relative infancy. Its complicated funding arrangements are also seen as a barrier to awareness and understanding. The annual calls for Themes is helping to raise awareness, and the situation is improving slowly. However, it is still not well utilised by most scientific communities, partly due to low levels of awareness, but also due to a perception that funding is difficult to access, with many steps, lengthy and complicated processes, uncertain outcome, and relatively small rewards.

While EUROCORES has considerable strengths, the scheme has yet to build a high profile and credibility within many communities, and more financial buy-in and co-operation from NFOs is required if this is to be achieved. At face value this is the kind of collaborative research NFOs wish to support, but there is already a great deal of funding for European collaboration and networking available through central pots. National funding is stretched and it is hard for NFOs to commit significant sums to EUROCORES, particularly when the programmes are not built around their own national priority areas. Some NFOs questioned whether EUROCORES can continue to find its own space with the advent of the European Research Council (ERC) and the growth of ERA-NETs. Both are considered as comparator or competitor schemes, with the ERC described as a potential future threat and ERA-NETs as offering greater opportunities for NFOs to build programmes around their own national priorities.

EUROCORES funding arrangements and the "à la carte" model

We received a somewhat mixed response as to whether EUROCORES funding arrangements are better or worse than those of other European research/networking instruments. However, the "à la carte" funding model as employed by EUROCORES is considered by many to be more attractive than a common pot for both scientists and funding agencies. The strengths of "à la carte", as employed within the context of EUROCORES are that it is better at responding to researcher-driven priorities, and allows for the creation of more clearly defined, coherent programmes, less influenced by political agendas. It also makes programmes easier to set up and allows for the introduction of more flexible arrangements, due to the absence of need for a consensus to be arrived at by all funders. Perhaps most importantly it gives a high level of financial control to NFOs, which encourages participation on their part.

The weaknesses of "à la carte" from the perspective of the scientists are that it allows NFOs to participate in programmes but without committing any funding before the project selection process, which creates a highly uncertain risk to reward ratio for scientists when apply-

ing. The model also allows funding bodies to reserve judgement on whether to fund individual projects until after the central assessment and selection process, allowing them to make their own selection. It therefore does not guarantee that the most highly rated projects will be supported, which is a major disincentive among the scientific communities. The need to have multiple NFOs' approval for each collaborative project can also mean that funding decisions are overly complex and protracted, with consequential delays in launching the projects.

NFOs were evenly split over whether the use of a common pot funding model would be feasible or desirable to them, with a third saying it might be, a third saying it would not be, and a third stating that they were presently unsure. Many NFOs feel that full exploration and consultation on the attractiveness and feasibility of alternative funding models is required, including consideration of ESF, with their help, accessing alternative sources of funding for the scheme.

EUROCORES procedures

New EUROCORES programmes are developed through annual calls for 'Themes' – programme ideas put forward by members of the scientific community. Participants are on the whole quite satisfied with the procedures employed in the Theme assessment and selection processes, and some improvements to the process over time have been noted. While the overall opinion is positive, the transparency of the appraisal and selection of Themes and the quality of feedback provided to proposers is considered by some to be unsatisfactory, and isolated problems over the fullness and consistency of reviews have been evident in the past. Many participants would therefore welcome better information provision in relation to EUROCORES processes and procedures. Most Theme proposers and ESF Committee Members feel that the broad arrangements for programme development should be retained in future, though there are some arguments in favour of including NFOs more closely in the review and selection of Themes, in order to encourage greater buy-in and help to shorten overall timescales.

Most EUROCORES programmes employ a fairly standard two-stage process for project application and selection, involving outline- and full-proposal stages. Participants and NFOs are quite satisfied with the procedures for project calls, and the associated application, assessment and selection processes. EUROCORES project application / selection procedures are rated as of a similar quality and complexity to those employed by other comparable programmes. Levels of administrative bureaucracy are much lower (i.e. better) in EUROCORES than in comparable programmes, particularly those run by the European Commission. However, some criticism was received in relation to the quality and volume of feedback provided to applicants and the transparency of the selection processes.

A major cited weakness of the project selection process is that it can be 'overturned' by the funding decisions taken subsequently NFOs. Some participants argued for clearer funding commitments from NFOs and suggested that the central decision process should drive the final selection within the available budgetary limits. Overall timeframes are generally considered to be too long, though they compare reasonably with other comparable instruments in terms of the speed of certain parts – e.g. development of new programmes and the processing of project applications. The main area of dissatisfaction concerns the time taken by NFOs to reach final funding decisions on projects, which is felt to delay (in some cases significantly) their launch and in effect creates a three-stage selection process (outline, full, funding).

Early indicators on programme progress

The early indications on the EUROCORES programmes launched so far are positive. Committee Members have generally been satisfied with the number and quality of Theme proposals submitted in their areas, and in some cases good proposals have had to be turned down, suggesting that demand from the scientific community is outstripping NFOs' ability to supply the necessary funding. Committee Members also indicated that most of their communities rated the selected Themes as innovative and involving leading scientists in novel research, with the programmes focused on interesting topics and offering high levels of European added value.

Proposers of selected Themes in most cases indicated that levels of interest from the research community had met or surpassed their expectations, but that interest from NFOs had been lower than expected. Nonetheless, the majority of project leaders and Review Panel members expect the programmes in which they have been involved to meet their objectives.

Most Review Panel members rated the number and quality of project proposals and the standing of the scientists applying as high or very high. The selected projects were rated as performing well on all key dimensions (scientific quality, interdisciplinarity, novelty, European added value, leading edge in their fields), Strong proposals have had to be turned down, often only in a small number of cases but sometimes in many cases. Levels of interest from the research community and NFOs have met or surpassed most project leaders' expectations, and projects are widely expected to meet their objectives.

4. Summary of the EUROCORES Survey by Technopolis

Collaborative Research Projects (CRPs) are expected to be exactly that, with the majority of CRP leaders expecting to meet and co-publish research results with all of their individual partner teams. CRP leaders have collaborated with on average 40% of their partners previously, suggesting that most of the collaborative partnerships in EUROCORES are newly brokered. Collaboration across the different projects is also expected to be reasonably high, with CRP leaders on average expecting to interact with around half of the other projects within their programme.

Management of EUROCORES by ESF

The majority of CRP leaders and Review Panel members are highly satisfied with the level and quality of support provided to them from ESF's EUROCORES Office and rate the programme coordinators highly in terms of their knowledge, competence and responsiveness. Most NFOs are also complementary about the EUROCORES management, with the majority rating the quality and timeliness of information, knowledge and responsiveness of staff and level of support provided as good. The level and quality of cooperation also appears good on the whole, though some NFOs would welcome more regular communications from ESF and more information, better tailored to its different audiences.

Many NFOs are confused about the future funding arrangements for both EUROCORES management and its networking activities, given that funding from Framework Programme 6 for these aspects is due to end in 2008. Many would welcome better information provision on this issue, and ask ESF to explain more clearly the reasons and nature of the changes and laying out the full range of options for future provision. Further consultation within NFOs will be needed before a new funding arrangement can be agreed.

Recommendations

The survey findings suggest that the EUROCORES scheme has a number of key strengths, including its focus on supporting novel, researcher-driven research programmes and its open, flexible and non-bureaucratic approach. It therefore retains a great deal of support from both the scientific communities and the NFOs across Europe. However, it has a number of problems with its funding model, which limit its overall ability to launch programmes and projects quickly and at a significant scale.

Based on the survey findings EUROCORES would benefit from

- Exploration of ways to encourage higher levels of financial support and buy-in by NFOs, preferably at earlier stages in the programme and project development cycle, and without compromising its current strongly researcher driven approach
- Exploration of alternative sources of finance and funding models, in order to ensure that the most attractive and suitable arrangements are deployed
- Stronger proactive promotion of EUROCORES by both ESF and NFOs
- Resolution of problems surrounding the "à la carte" funding model and specifically the additional time, complexity and negative consequences to the selected CRPs associated with reappraisal and potential non-funding of projects by NFOs
- More streamlined processes and shorter timeframes
- Stronger review processes and greater transparency around appraisal and selection
- Improved communications and information provision, particularly to NFOs (progress and outcomes) and applicants/reviewers around processes and outcomes
- Better feedback to proposers and applicants following selection decisions
- Earlier involvement of NFOs in the programme development process, in order to expedite funding decisions
- Clarification of future funding options for EUROCORES management and networking, followed by consultation on the options
- Ongoing review of the complementarity between EUROCORES and other instruments in order to avoid duplication of effort or overlap and to seek out possible synergies.

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