

BONUS+

CALL

Independent Observer's Report

Rudolf Novak

Head of Department
Development & Strategy-
National Programs

The logo for the Austrian Science Fund (FWF) consists of the letters 'FWF' in a bold, blue, sans-serif font. The 'F' and 'W' are connected, and the 'F' has a small gap between its top and bottom bars.

Der Wissenschaftsfonds.

Austrian Science Fund
1090 Vienna, Sensengasse 1, Austria
T: +43/1-505 67 40-8601
rudolf.novak@fwf.ac.at, www.fwf.ac.at

Contents

Executive Summary.....	2
2. Terms of reference of the independent observer and approach to perform the task.....	3
2.1. Tasks of the independent observer.....	3
2.2. Approach taken to perform the task.....	4
3. General design of the evaluation procedure	5
3.1 Framework conditions.....	5
3.2 Design of the evaluation procedure	6
3.3. Guidelines and Criteria.....	7
3.3.1 Application Guidelines	7
3.3.2 Evaluation Criteria.....	7
3.4. Regulations of Conflicts of Interest	8
3.5. Observations	8
3.5.1 Framework conditions.....	8
3.5.2 Design of the evaluation procedure	9
3.5.3 Guidelines and Criteria	9
3.6. Recommendations	9
3.6.1 Framework conditions.....	9
3.6.2 Design of the evaluation procedure	10
3.6.3 Guidelines and criteria	10
4. Selection of Evaluators.....	10
4.1 Selection and Instruction of Evaluators.....	10
4.2 Observations	11
4.3 Recommendations	12
5. Performance of Evaluations and Decisions.....	13
5.1 Step one: evaluation of Letter of Intent (LOI).....	13
5.1.1 Review of LOI	13
5.1.2 Decision on LOIs.....	13
5.1.3 Information of applicants of LOIs.....	14
5.1.4 Feedback of Applicants of LOIs.....	14
5.2 Step two: evaluation of Full Proposals (FP).....	15
5.2.1 Review of FP.....	15
5.2.2 Decision on FP.....	16
5.2.3 Information of applicants of FP	17
5.2.4 Feedback of Applicants of FP.....	18
5.3 Observations	18
5.3.1 Review	18
5.3.2 Decision	22
5.3.3 Information of applicants.....	24
5.3.4 Feedback of Applicants	25
5.4 Recommendations	25
5.4.1 Review	25
5.4.2 Decision	28
5.4.3 Information of applicants.....	28
5.4.4 Feedback of Applicants	29
6 Next steps.....	29
6.1. Decisions.....	29
6.2. Reporting/ Monitoring/ Evaluation	29
7 Concluding remarks.....	30
Annex 1: Documents relevant for the independent Observer	31
Annex 2: Definition of Conflicts of Interest for Members of BONUS-EEIG management bodies	33

Executive Summary

The report of the independent observer gives a brief analysis of the BONUS+Call management and decision making process, with special emphasis on the evaluation process. The report concentrates on the general design of the evaluation procedure, the selection of reviewers and the performance of evaluations and decisions. Observations are reported and recommendations are given on each of these issues.

Main conclusions:

In general, call management, decision and evaluation processes were of high quality according to international standards. Organization and support by the BONUS-EEIG Secretariat and Call task Force were excellent. This was confirmed by feedback from applicants as well as from evaluators.

General design of the evaluation procedure

The BONUS+Call is a very complex undertaking, which requires complex management and governance structures. It will be a challenge to keep administrative and organizational load in an adequate balance to research efforts. The framework of regulations and contracts appears to be adequate, as well as the two step evaluation process and guidelines and instructions, both for applicants and reviewers. The web-based call and review management by the EPSS was very good and generally approved.

Selection of reviewers

Was of high international standard. Conflicts of interest were efficiently avoided, the majority of evaluators came from non-Baltic countries. Ratio of reviewers per application was rather low (ca. 1:5) and should be increased in further calls by involving more reviewers, in order to reduce workload for reviewers and enhance coverage of scientific topics by reviewer expertise.

Performance of evaluations and decisions

The evaluation process was performed with high quality according to international standards. It ensured a maximum of impartiality and the selection of proposals of high scientific quality in both steps of the evaluation. Reviewers in both evaluation steps gave ample feedback and recommendations in the frame of full surveys. Central points were: time frames were very tight, number of reviewers involved per proposal should be increased. Organization of the combination of paper- and panel review in the evaluation of full proposals could be improved.

The decision making process of the BONUS EEIG-Steering Committee both on letters of intent and on full proposals was impartial, fair and efficient. Preparatory work of the BONUS EEIG secretariat and the Call task force were excellent, this as well as indicators (ratings) played a central role. Quality and transparency of the decision process could probably be further improved by giving more time to the consideration of contents of reviews and applications in problematic cases.

1. Introduction

International peer review is still “the” tool for assessing scientific quality. There is general agreement that no serious alternative to peer review is existing. The discussion, however, identifies major challenges, that have (or soon will have) to be met by the peer review method:

- Increasing societal pressure on science,
- Increasing globalization of science,
- Increasing interdisciplinarity of scientific research,
- Increasing competition for competent experts (reviewers),
- Ensurance of impartiality and independence of peer review,
- Increasing importance of supporting methods (“informed peer review”),

just to name some of the most prominent ones¹. For ambitious funding programmes such as the BONUS-plus, that include transnational as well as inter- and transdisciplinary research, the challenges are even harder than for any other funding schemes.

Several improvements of the peer review system are under discussion and there are many different ways of realizing them, such as paper vs. panel review or a combination of both, additional use of scientometrics and indicators, electronic media, etc. Each of them brings about advantages and disadvantages and at the end of the day it is up to the “user” of peer review, i.e. the funding agency (the publisher, the government) to decide on the trade off between outcome (results of peer review) and invested effort.

This report briefly analyzes the evaluation process of the BONUS-plus call 2007/08 and comments on its various aspects, considering the above mentioned challenges and perspectives. There is certainly nothing like “the ideal solution” for appropriate assessment of the quality of scientific research and there will always be room for improvements. Comments and criticisms should be viewed against this background.

2. Terms of reference of the independent observer and approach to perform the task

2.1. Tasks of the independent observer

The task of the independent observer was to monitor and assess the BONUS+ Call management and decision making process and to provide a written documentation on observations regarding the objectivity and transparency of the Call process and an equal and fair treatment of the applicants.

The task included:

- examination of the BONUS+ Call contract with the European Commission

¹ For examples see e.g.:

Internat. Conference on Peer Review, Prague 2006

(http://www.esf.org/index.php?eID=tx_nawsecuredl&u=0&file=fileadmin/be_user/publications/Peerreview2006.pdf&t=1213432809&hash=05de09029b244fc4ab5ea437e190b8b3),

ESF Member Forum on Peer Review The Hague Workshop 2008 (<http://www.esf.org/activities/mo-fora/peer-review/peer-review-workshop-in-the-hague.html>).

- examination of Call preparation documents such as meeting minutes, agreements, Memoranda of Understanding, instructions for evaluators
- examination of the definition of the themes BONUS+ Call
- examination of the electronic call management tools
- attendance, monitoring and assessing the following meetings
 - 12th March, 2008: BONUS EEIG Steering Committee meeting in Helsinki to decide which projects will be invited to submit a Full Proposal
 - 28th-29th May 2008: Evaluation Panel meeting in Helsinki
 - 18th June, 2008: BONUS EEIG Steering Committee meeting in Helsinki to decide which projects will be funded
- preparation of an assessment report on the observations with the technical support of the Secretariat

The Contractor was obliged to maintain professional secrecy concerning all information obtained in connection with the performance of his work during the period of his contract with BONUS EEIG and also after termination of the contract.

2.2. Approach taken to perform the task

The independent observer was provided with all documents that were considered as relevant for his work by the BONUS-EEIG secretariat. He was provided with access to the BONUS Extranet, and had access to all documents that were placed in the BONUS Extranet during the development of the Programme. In addition, he had access to the EPSS (The Electronic Proposal Submission System) and therefore to all applications and reviews in the frame of the BONUS+Call.

The independent observer had the opportunity to discuss with BONUS-EEIG-Steering Committee and staff members of the BONUS-EEIG secretariat as well with panellists in the frame of the meetings in Helsinki mentioned above.

In order to receive feedback about the process from external experts and the scientific community, a survey among all applicants and all reviewers in both steps of the two-step application and evaluation procedure (see 3.2) was suggested by the independent observer. This survey was in part conducted using the EPSS (for feedback of applicants in steps one and two, for feedback from reviewers in step one; this was managed by the BONUS-EEIG secretariat), and in part personally by e-mail (for feedback from reviewers of full proposals in step two).

The work of the independent observer was very well supported by the BONUS-EEIG secretariat. The BONUS EEIG secretariat's staff members were very helpful in clarifying details and open questions and also gave feedback on the draft of the independent observer's report before it was finalized. The BONUS EEIG secretariat summarized technical details of the call procedures and cornerstones of the results of both evaluation steps in the BONUS+Call Report, provided in June 2008. In this report, also the results of the above mentioned surveys via the EPSS are described and summarized. Where ever possible, the report of the independent observer makes reference to the BONUS+Call Report of the BONUS EEIG secretariat. However, for the sake of comfortable reading of the

observer's report, it was not always possible to avoid redundancies, but attempts were made to keep them to a minimum.

3. General design of the evaluation procedure

3.1 Framework conditions

The BONUS plus Call is part of an international effort of the nine Baltic Sea states that has been initiated in 2003 and aims at the creation of a transnational joint research programme, that should be implemented under the Article 169 of the EC Treaty by 2009. Thus, BONUS-Plus, implemented under the funding scheme of ERA-Net-plus in the 7th Framework Programme of the EC, forms a bridge between the BONUS-ERA-Net established in 2004 and the joint programme under article 169, referred to as BONUS-169.

The approach of the entire BONUS- initiative is defined as cooperative, interdisciplinary, transnational and sustaining. It includes the aspect of training of young scientists (postgraduate training programme) as well as the development of jointly agreed procedures of programme management and common use of marine research infrastructure and should also establish links to societal issues and to policy.

This extremely ambitious array of goals was shaped into eight specific "key research themes" and comprehensively outlined in the BONUS-169 Science Plan^{2,3}.

These themes are

- 1: Linking Science and Policy
- 2: Understanding Climate Change and Geophysical Forcing
- 3: Combating Eutrophication
- 4: Achieving Sustainable Fisheries
- 5: Protecting Biodiversity
- 6: Preventing Pollution
- 7: Integrating Ecosystem and Society

An eight task (not a research theme) is the common use of research infrastructure and resources.

The BONUS 169 Science Plan claims the involvement of 19 organizations in the development of BONUS (participants and observers). Finally, 10 funding organization from all countries around the Baltic participated in the BONUS+Call⁴.

The call started on September 17th, 2007, with a deadline for submitting first stage proposals (Letters of Intent – LOI) initially scheduled for Nov.28th 2007⁵. The deadline was extended to December 28th 2007 through accelerated decision of the Steering Committee on Nov.26th. (mainly because of extended negotiations regarding the participation of Russia). The goal was to have the first projects started by autumn 2008⁶.

The broad spectrum of research themes, the strong interest of the Baltic sea scientific community and the flexibility of the call resulted in the submission of 149 Letters of Intent from 19 different countries with an application volume of ca. 190 Mio EUR and about 1000 scientists involved. At the time of preparation of this report the sum available for funding was

² <http://www.bonusportal.org/uploads/od9p7amladypn.pdf>

³ BONUS+Call Report, 2008, p4

⁴ MOU on the BONUS+Call

⁵ EEIG-SC Minutes from Meeting on Dec.5th, 2007

⁶ BONUS+Call Report, 2008, p6

about 22,1 Mio.€, including 7,3 Mio.€ from EC funds (final sum will depend on the decision of the participating national funding agencies).

3.2 Design of the evaluation procedure

The evaluation procedure of BONUS plus projects was designed in co operation of participants in the BONUS- initiative and broadly agreed⁷.

Evaluation was carried out as a two-step procedure:

Step one was the evaluation of Letters of Intent (LOI); step two was the evaluation of full proposals (FP). The evaluation was performed by international Peer Review, in the form of written (paper) review in the first step and a combination of paper and panel review by international experts in the second step. Both application and review process were web-based, supported by an "Electronic Proposal Submission System" (EPSS) and managed by the BONUS-EEIG secretariat.

Four administrative / technical bodies, with the support of BONUS EEIG Secretariat, are involved in the management and direction of the evaluation and approval of proposals:

- 1) The BONUS EEIG Secretariat. It runs the Call with the help of BONUS+ Call Task Force and is in charge for overall coordination and technical organization of the Call.
- 2) The BONUS EEIG Steering Committee is composed of one representative from each Member. It supervises the Call and ultimately makes recommendations concerning the projects to be funded to the national funding bodies. It also makes decisions concerning the EC ERANET Plus funds and will continue steering the scientific coordination and monitoring the funded projects.
- 3) The BONUS+ Advisory Board. This is a panel of scientific experts and stakeholders appointed by the Steering Committee. It gives a recommendation concerning the projects to be funded on the basis on their relevance in relation to the programme objectives. It is planned to establish a BONUS EEIG Advisory board after the call, that will accompany the BONUS+ project.
- 4) The BONUS+ Call Task Force. It is composed of national programme managers, appointed by Members. It assists the Secretariat with technical matters concerning processing of the proposals and takes care of all local matters in each country/organisation.

National funding agencies play a decisive role, as they take the definitive funding decisions, based on the suggestions of the BONUS EEIG Steering Committee.

A further body is planned after the selection of the projects to be funded, i.e., a Forum of Project Coordinators. It should support the BONUS-EEIG Secretariat in planning and executing the scientific coordination of the BONUS+ projects. Its main aim will be to ensure that BONUS+ will create the added value (described in detail in the BONUS+action plan⁸).

Several further bodies, which have more or less extensive overlaps with the BONUS EEIG bodies in terms of persons involved, are acting in connection with the BONUS-ERA net, that will run until the end of 2008, i.e.: the BONUS ERA net Network Steering Committee (running in parallel with the EEIG Steering Committee from August 2007 on), the BONUS ERAnet

⁷ A detailed description of the application and review process is given in the BONUS+Call Report p.4ff.

⁸ See BONUS EEIG Steering Committee Meeting on June 18th 2008

Advisory Board, having overlaps with the BONUS+Call Advisory board and the BONUS ERA net forum of programme managers, overlapping with the CTF of the BONUS+Call. Tasks of the bodies are clearly separated, so the parallel action should not affect the BONUS+Call procedures.

Memberships, composition as well as competences and interactions between the above mentioned bodies, administrative processes, procedures (e.g.: handling of conflicts of interest) and time scales, etc. are regulated in the BONUS-EEIG Memorandum of understanding and in the BONUS-EEIG Internal regulations and the agreement on BONUS-EEIG statutes (see Appendix 1).

3.3. Guidelines and Criteria

3.3.1 Application Guidelines

Research proposals could be submitted by consortia created by universities, non-university public national or international research establishments and commercial companies, or by individual scientists associated with institutions according to relevant national regulations. Size of project proposals was flexible, ranging from a total funding between 100,000 € and 2,000,000 €. A minimum of two BONUS partner countries was required. Participants from non-Baltic European Community States and third parties should cover 50 per cent of their expenses and could apply the other 50 per cent from the Call.

The Call stated that it was intended to give priority to research projects within Themes 1 and/or 7 and to projects that link Themes 2–6 with 1 and 7 in an interdisciplinary manner. Interdisciplinary research among Themes 2–6 was also encouraged⁹. Specific guidelines were formulated separately for LOI and for Full proposals. Formalized information about the Project coordinator and participating principal scientists was required as well as a short research plan (7 pages) in the case of LOIs, a full research plan (20 pages) in the case of full proposals. The Call gave detailed information both on the structure and the contents of proposals in both steps. All guidelines were available electronically on the WEB via the BONUS Electronic Proposal Submission System (EPSS).

3.3.2 Evaluation Criteria

The Call defined clear criteria for the evaluation both of LOI and Full proposals. Five criteria were defined for the LOIs, for each criterium, explanatory remarks were added. For Full proposals, three major criteria were defined, which all together contained 13 subcriteria¹⁰. Reviewers were asked to give ratings for the main criteria as well as for subcriteria according to a rating scale, which ranged from 1 (Poor) over 2 (Fair), 3 (Good), 4 (Very good) to 5 (Excellent). The reviewers were allowed to rate in half-point steps. Both for LOI and for Full proposals, also an overall score was required. The evaluation criteria were published on the web in the frame of the call.

The decisions of the Steering Committee are supposed to be based exclusively on the results of the scientific evaluation. For the final funding decision, however, additional input from the Advisory board will be provided. In this case, no clear set of criteria for this input was developed.

⁹ see 3.1 and the BONUS+Call Report (p.4) for themes

¹⁰ See BONUS+Call Report, p.7 and Appendix 10

3.4. Regulations of Conflicts of Interest

The BONUS-EEIG Programme management attached great importance to that issue. The regulation framework of the BONUS EEIG contains a clear set of criteria that disqualify members of BONUS:EEIG bodies to participate or otherwise assist in the Call process as regards handling his/her own or intimate's applications or competitors' applications. The rules state also, that it has to be ensured that none of the applicants shall get access to the others competing proposals. Basically the same criteria apply for reviewers in the frame of the BONUS+Call¹¹.

3.5. Observations

3.5.1 Framework conditions

The BONUS+ Call is the result of a long preparatory process between the participating funding organizations and institutions, all steps were carefully discussed and commonly agreed¹². The contract with the EC¹³ contains all relevant outlines and regulations. In combination with the BONUS+ Memorandum of Understanding, the internal Regulations of BONUS EEIG and the Agreement on EEIG Statutes¹⁴, a solid basis is provided for running the programme.

The participation of so many countries and organizations resulted in a great number of bodies involved in the management (about six in the end). Competences and interactions are well defined, however, the impression is, that in practical work, running of the entire BONUS+ project will be very complex. This always bears the danger of clumsiness and it is also costly. The budget for scientific coordination is 1,5 Mio € (7,5% of the funding allocated to the Call; for programme implementation costs, especially from the scientific point of view, coordinate projects' results, dissemination, etc.) and 1,2 Mio.€ for running costs of the BONUS EEIG (employers responsibilities, audit responsibilities, running of daily routines and facilities), giving a sum of 2,7 Mio.€ 2007-2011¹⁵. Considering the total amount of the initially planned funding budget of 23,3 Mio.€, the heavy administrative and coordinative load for the management of such complex, multinational projects becomes impressively evident. Direct costs for the BONUS+Call management amount to 0,45 Mio.€, which, taking into account what has been planned and developed for the call, can be considered as very cost efficient. It will, however, be a great challenge for the programme management to find an optimal balance between adequate governance structure (i.e., involvement of participants and stakeholders in decisions etc.) and a reasonable (and bearable) buerocratic load, that does not hamper research work.

The research themes also are the result of a long lasting international and co operative development process. They cover a wide range of research fields, opening up the possibility for a great community of researchers. However, this resulted in the given oversubscription of the programme, which posed a great challenge for the organization of the review process.

Oversubscription is a common phenomenon, virtually all national research funding bodies are confronted with it and especially some funding schemes of the EC. In the case of

¹¹ See Appendix 2

¹² All meetings of the various Bodies involved in this process (Call Task Force, Steering Committee, Forum of Programme Mangers) are well documented by comprehensive minutes

¹³ BONUS+description of work, Appendix 1

¹⁴ Appendix 1

¹⁵ Minutes of SC Meeting August 21st 2007

BONUS, the ratio between applied and available sums (ca. 12%) is certainly on the challenging side, but well within the range of, e.g., EC funding programmes.

The time frame for the BONUS call can be considered as rather tight, when the complexity of the programme, the number proposals, bodies and organizations involved in the decision process are taken into account. This becomes clearly evident also from the feedback statements of applicants and reviewers; especially the extension of the call for LOIs on a short notice was criticized (see 5.1.4).

3.5.2 Design of the evaluation procedure

A two step evaluation procedure, relying exclusively on international peer review, such as the one applied in BONUS, is state of the art, has proven very useful and effective and is thus widely used in complex funding programmes, especially ones that are likely to run into the problem of heavy oversubscription¹⁶. The fact, that a considerable number of the first step proposals do not survive the first evaluation step reduces the workload not only for the funding organization to organize the in-depth review of full proposals, but also for applicants, who get an early feedback about the quality and the chances of success of their approach and thus save much time and effort, when a “hopeless” proposal is already rejected in the first stage. However, decision about acceptance or rejection in the first stage has to be based on solid grounds, in order to avoid the loss of potentially very good projects.

Several bodies are involved in the evaluation and decision procedure. The task of the decisive one, i.e., the BONUS-EEIG Steering Committee, is clearly specified. It should be positively underlined, that scientific quality is explicitly defined as the predominant criterion for funding. In this respect, however, it has to be mentioned that the role of the BONUS+ Advisory Board is more vaguely outlined in the documents, especially with regards to the weight of its recommendations in relation to the results of the scientific evaluation. It does not become clear from the outlines in the documents¹⁷, whether, e.g., a weak scientific evaluation could be overruled by a high score of the Advisory Board.

3.5.3 Guidelines and Criteria

The guidelines for applications were in general very clear, concise and lean, they are of high quality and user-friendly; this was explicitly appreciated both by applicants and reviewers. The limitations of application size was considered as an excellent basis for comparing different proposals by the reviewers. However, it turned out that some applicants sort of circumvented the limitation by, e.g., using a small font sizes of letters, which made the applications hard to read in those cases and to compare them with others.

The EPSS is obviously an excellent tool submitting proposals and for managing the Call, this was also explicitly appreciated both by applicants and reviewers.

3.6. Recommendations

3.6.1 Framework conditions

The complexity of the project certainly requires complex management and governance structures. The overlap between the BONUS ERAnet and the BONUS+Call add a further dimension to this complexity. Faith can (and has to) be put in the BONUS programme management, that a proper balance between coordination, administration and actual

¹⁶ e.g. the Eurocores scheme of the ESF and virtually all funding schemes for large scale cooperative projects of national funding agencies.

¹⁷ BONUS+description of work, Appendix 1

research will be found. It may be worth considering, however, if and how the numbers of bodies involved could be reduced when the BONUS+ projects are running.

It is also a challenge in thematic funding programmes to find the appropriate balance between broadness and focus of research themes. More focussed research topics in a call reduce the number of possible applicants, on the other hand, much potential is lost and the criticism, that a programme is being a “closed shop” soon appears. It may be worth considering this aspect for a forthcoming call and probably go for more focussed research themes in order to reduce the number of applications.

3.6.2 Design of the evaluation procedure

The two step evaluation approach is the most adequate one and should be maintained.

Organizing the entire evaluation process by the BONUS EEIG programme management is in line with the principles of the ERA-concept. Reducing the burden of pre-selection for the BONUS+ Programme Management by delegating this task (at least in part) to national funding agencies (such as some other funding organizations and schemes¹⁸) would be impractical (or at least very complicated) in the case of BONUS+, where several national funding agencies are involved in each single project.

The role of the Advisory board could be more clearly defined. Although its tasks are well described¹⁹, it is not clearly outlined what will be the impact of its recommendations. Involvement of stakeholders is certainly important in projects such as BONUS+, but priorities in the decision making process should be very explicit.

3.6.3 Guidelines and criteria

No specific recommendations for improvement can be given. One minor point of improvement of applications guidelines would be, that fonts and font size of letters could be specified, in order to improve the readability and comparability of the proposals.

4. Selection of Evaluators

4.1 Selection and Instruction of Evaluators

Reviewers in the frame of BONUS+ were supposed to meet high quality standards of international peer review. They should have a high international scientific reputation, practical experience in the conduction and evaluation of large and complex research projects and good expertise, if possible not only in their own field but also in the sense of a broader view, in order to ensure adequate treatment of interdisciplinary proposals. They should have no relation to one of the scientist involved in the project they reviewed but should, on the other hand, have a knowledge of the Baltic and its specific situation, including political- and sociological contexts.

Evaluators were selected by the BONUS EEIG Secretariat in co operation with the Call Task Force. 30 Evaluators were appointed for reviewing the LOIs. The distribution of reviewers according to the seven key research themes can be seen in the overview provided by the EEIG secretariat.

¹⁸ E.g. in the EURYI-scheme (European Young Investigators Award, run by Eurohorcs, now replaced by the SIRG-programme of the ERC) such an approach was used: participating organizations were allowed to submit a limited number of potential awardees, according to the amount of money they were contributing to the entire budget, and selection of appropriate candidates was left up to them.

¹⁹ Appendix 1, BONUS+ description of work

11 evaluators were appointed for reviewing full proposals in the frame of a review panel meeting. From these, 4 were new, i.e., they were not involved in the LOI review process. The distribution of panellists according to the seven key research themes can be seen in the overview provided by the EEIG secretariat.

Members of the review panel for the second step evaluation should cover all relevant fields of expertise related to the Themes of the Call. They should also be unbiased geographically, nationally and in respect to gender or conflict of interest. The chair of the review panel was appointed by the Steering Committee.

Scientist who agreed to act as reviewer had to sign a contract, where tasks, deliverables, deadlines for submission of reviews were regulated as well as a definition of conflicts of interest and remuneration: each reviewer of an LOI received 35 € per reviewed proposal²⁰. The panel members for the evaluation of full proposals received 35 € per reviewed proposal (see next section) and 300.- € for each day of panel meeting (travel and accommodation costs for these reviewers were fully covered by BONUS EEIG).

From the 30 reviewers of LOI, there were seven women, from the 11 panellists for the review of full proposals, two of the panel members were women.

Reviewers were provided with brief information about the aims of the BONUS-programme, the requirements for applications, as well as the evaluation procedure and the criteria. They had to declare conflicts of interest, according to the criteria defined for members of BONUS-EEIG management bodies (see 3.4). They were given access to the EPSS, where all relevant information was available.

4.2 Observations

The construction of the BONUS+Call and the required qualification profile of reviewers posed challenges for the selection of reviewers. International competition for competent experts, who are able to act as high-level reviewers is getting harder, and the requirements for BONUS+ evaluators were manifold and ambitious. The BONUS-EEIG programme management successfully met these challenges.

From the 30 reviewers of the LOIs, the majority (about two thirds) came from non-Baltic countries. Conflicts of interest were declared, but occurred only in a few cases, i.e. 6 out of 149 proposals, which can be considered as an excellent result and as an indication for the careful selection of reviewers.

The reviewers were all scientist with a good international standing and a high scientific profile. Their expertise covered well the entire spectrum of scientific fields involved in the Call. Thus, the requirements regarding the scientific profile of reviewers was well met.

The ratio between the number of applications from a wide range of different scientific fields and the number of reviewers involved was overall roughly 1:5 for the LOIs (149 proposals vs. 30 reviewers) as well as for FPs (55 proposals vs. 11 reviewers). This ratio, however, varied considerably between different research themes, according to the number of applications submitted: greatest number of applications in the LOI stage were submitted under theme 1

²⁰ See Appendix 1, Contract for evaluators and regulations of COI

(linking science to policy, 31 proposals), the lowest number under theme 4 (fisheries, 14 proposals)²¹.

The proportion of female reviewers was around 20% in both review steps. This may be viewed critically, but is a reflection of the still widely existing under-representation of women in advanced stages of scientific careers. Gender balance is certainly an important issue, and the tension between ensuring high scientific quality and taking care of an appropriate (i.e. increased) share of female scientist in academic processes, bodies, ect. is a pending problem worldwide (in some countries more, less so in others).

The EEIG Steering committee appointed the members of the review panel in its meeting on March 12th 2008, based on the results of the evaluation of LOIs. There was an extensive discussion concerning evidences for conflicts of interest that appeared in the case of two candidates, as well as regarding an adequate coverage of scientific topics of the invited full proposals. The discussion resulted in replacement of the two panel members in question and also in the appointment of new reviewers (completed by “accelerated decision process” in April 2008). This reaction of the EEIG Steering committee and others, that were evident to the observer, indicated that the EEIG Steering Committee seriously attaches great importance to impartiality and transparency of the review process. The nomination of a “rapporteur” was not necessary, as there was only one review panel established.

Information and guidance of reviewers via the EPSS was clear and both comprehensive and concise: the EPSS in offered the possibility to view the guidelines for review in each step of entering the review and the rating providing additional support for the work of reviewers. This was explicitly appreciated by the reviewers.

In general the selection process as well as instructions of reviewers can be considered as very careful and clear, ensuring a sound and stringent review process.

4.3 Recommendations

Based on the information available to the independent observer, one recommendation for improvement should be made:

The rather low ratio of reviewers vs. proposals, both in the LOI and the FP stage, was viewed as a critical point for several sides. It caused various concerns, that were addressed by reviewers in their feedback statements, especially regarding workload and coverage of scientific topics by reviewer expertise. An increased number of reviewers would of course cause higher costs as well as organisational and administrative efforts, and an appropriate balance between investment and outcome is certainly important. In the sense of further improving a procedure of already good quality, however, this issue should be considered for the future; it will also be addressed in more detail in the following section of this report.

²¹ See Call statistics, Meeting of the EEIG-SC on March 12th, 2008.

5. Performance of Evaluations and Decisions

5.1 Step one: evaluation of Letter of Intent (LOI)

5.1.1 Review of LOI

A total number of 149 LOIs had to be reviewed by 30 evaluators. Each LOI was to be reviewed by three evaluators²².

The distribution of proposals among evaluators showed great imbalances, obviously due to the fact that reviewers had to be appointed before the actual number of proposals, that were submitted under the various research themes, was definitely known. The number of LOI that had to be reviewed by one evaluator ranged between 5 and 34 (see overview of the BONUS- EEIG secretariat).

The time frame for performing the review of LOI was four weeks (14th Jan. to 15th Feb.2008²³. Reviewers had to enter their statements and ratings into the EPSS; where each reviewer had access only to the projects she/he was in charge of. The entering of their statements and ratings was guided by the EPSS.

Feedback of reviewers of LOIs

In order to collect feedback from reviewers on the BONUS-Call evaluation procedure, a survey among all reviewers of LOI was performed, following a suggestion of the independent observer. Reviewers were asked to give feedback on the following issues:

- Guidance/ instructions for evaluators
- Coverage of proposals by the evaluator's expertise
- Sufficiency of information provided in the proposals
- Workload: amount of proposals for reviewing
- Organisation of the EPSS
- Interactions with the BONUS-EEIG Secretariat
- Remuneration.

There was also the possibility to give short general remarks and comments about the BONUS+Call. The survey was conducted using the EPSS and was organized by the BONUS-EEIG Secretariat. Outcomes are summarized in the BONUS+Call Report²⁴ (see 5.3.1 for brief discussion)

5.1.2 Decision on LOIs

The EEIG-Steering Committee took a decision, which consortia should be invited for submission of a full proposal in its meeting on March 12th 2008. The basis for this decision was prepared by the BONUS CTF in its meeting on March 4th-5th, 2008. Proposals were ordered according to the average of the overall scores of the three evaluators. Ranking within a group of proposals having the same average score was completely random. Individual scores for the five criteria, that had to be rated by the reviewers, were not taken into account.

²² See BONUS+Call Report p.7

²³ See BONUS+Call Report, p.5f

²⁴ See BONUS+Call Report, p.13ff

The decision of the EEIG-Steering Committee was that all proposals with at least two ratings of five or an average of 4 or higher should be invited to submit a full proposal. Thus, the distribution of full proposals was as given in the table below:

	full proposals invited	% of full proposals	% of LOI
1: Linking Science and Policy	11	20,0	21,2
2: Understanding Climate Change and Geophysical Forcing	7	12,7	13,7
3: Combating Eutrophication	9	16,4	15,8
4: Achieving Sustainable Fisheries	3	5,5	9,6
5: Protecting Biodiversity	13	23,6	19,6
6: Preventing Pollution	3	5,5	10,3
7: Integrating Ecosystem and Society	9	16,4	9,6

Compared to the distribution in the LOI phase, this represents an increase in applications under themes 5 and 7, and a decrease of applications under themes 4 and 6.

5.1.3 Information of applicants of LOIs

The list of approved proposals was presented on the BONUS Homepage. Project coordinators received a letter of information. Applicants were given access to the EPSS System where they could view the reviews of their proposal (without acronyms of evaluators in order to protect their identity). The names of all evaluators should be made public as a group, but the individual appointments of evaluators to applications should not be revealed.

Most of the presentations during the SC (Call statistics) should be put on the Call Webpage and made available for the scientists after the decision of the EEIG-Steering Committee.

5.1.4 Feedback of Applicants of LOIs

Following a suggestion of the independent observer, a survey was performed among applicants for LOIs (approved and rejected ones) in order to receive feedback on the Call text, on application guidelines, workload, support and interactions (especially the technical support by the EPSS) and transparency. There was also the possibility to give short general remarks and comments about the BONUS+Call. This survey was conducted using the EPSS and was organized by the BONUS-EEIG Secretariat. Outcomes of this survey are summarized in the BONUS+Call Report²⁵.

Feedback was rather low. From 401 requests to give feedback, only 61 applicants made use of it (15,2%). Only three of the not invited applicants gave feedback. So results have to be interpreted with caution in terms of their relevance.

According to the numerical ratings (along the same scale as for reviewers), applications guidelines were judged most positively (above 4). With respect to workload, the amount of time given for preparing the proposal was viewed more critical (3,52) than the amount of information required (3,95). Views on Support and interactions varied considerably, from very positive about the BONUS Helpdesk (4,23) and organization of the EPSS (4,1) to rather critical, when interactions with national contact points were concerned (3,1).

²⁵ See BONUS+Call Report, p.13ff.

However, also in the case of applicant feedback, the general remarks gave useful insights about some key issues of the call from the applicant’s point of view, both in the positive and critical sense. A brief discussion is given in section 5.3.4.

5.2 Step two: evaluation of Full Proposals (FP)

5.2.1 Review of FP

Full proposals were reviewed in the frame of a two-days meeting of the review panel, consisting of 11 international experts (panellists). For each proposal, two panellist were appointed as reviewers, The number of proposals per reviewer varied much less for the full proposals, ranging from 6 to 12 per panellist.

Deadline for submitting full proposals was April 14th 2008. The time frame for the panelists to prepare for the meeting on May 28th/29th 2008 was thus again about 4 weeks. Each panellist was requested to submit a pre-statement electronically via the EPSS by May 26th ,, where also ratings of the three major and the subcriteria (3.3.2 and BONUS+Call Report, Annex 9) had to be given , as well as an overall score for the proposal. The BONUS-EEIG secretariat planned to prepare “merged statements” of the two reviews fro each proposal as a basis for the discussion in the review panel meeting and provide them to the reviewers before the panel meeting..

The review panel met on May 28th/29th 2008, sessions lasted from 9:a.m. to 7 p.m. on May 28th and 9.a.m. to 4.p.m. on May 29th. Participants in the meeting were ten panellists (one of the eleven panelists had to cancel his participation), three programme managers of the CTF, EEIG-BONUS secretariat staff members and two independent observers. The panel discussed each proposal, based on the pre-statements and agreed on the final scoring²⁶. CTF Programme managers prepared consensus statements on the basis of the merged pre-statements during the session by making amendments and/or modifications. Consensus statements were printed during the session, corrected by the executive director of the BONUS EEIG secretariat and the panellists, their approval of the consensus statement was confirmed by collecting their signatures by the end of the meeting.

The review panel ended with a consensual rating of all proposals, giving the following picture as a basis for the decision of the steering committee²⁷:

Number of Proposals	Overall Scoring	cumulative sums applied
2	in the 5,0 range	
13	in the 4,5 range	24,6 Mio.€
20	in the 4,0 range	52,4 Mio.€
13	in the 3,5 range	68,9 Mio €
6	in the 3,0 range	
1	in the 2,5 range	

²⁶ See BONUS+Call Report p.8f.
²⁷ BONUS+Call Report p.13

The distribution of proposals rated 5 or 4,5 over the 7 key research themes was

1: Linking Science and Policy	4
2: Understanding Climate Change and Geophysical Forcing	4
3: Combating Eutrophication	2
4: Achieving Sustainable Fisheries	0
5: Protecting Biodiversity	2
6: Preventing Pollution	1
7: Integrating Ecosystem and Society	2

In order to collect feedback from the reviewers of full proposals on the entire process and the meeting, all of them (also the one who could not attend the meeting) were asked to send their comments by e-mail to the independent observer and to the BONUS-EEIG secretariat (see 5.3.1 for discussion).

5.2.2 Decision on FP

On June 2nd, the BONUS+ Advisory Board²⁸ met and discussed the results of the review of full proposals and made a “relevance evaluation”. The members of the Advisory Board had access to all reviewers statements, as well as ratings and the minutes of the Evaluation panel meeting on May 28th/29th. The minutes of this meeting state that the board went through all 55 full proposals, but then decided to focus mainly on projects that were rated 5 and 4,5 and some of the projects rated 4 by the scientific review panel. While the scientific evaluation panel evaluated projects mostly by their scientific merits, which resulted in relatively large groups of projects with ratings of 4,5 and 4, the BONUS+ Advisory Board identified preferences according to their criteria and looked at the projects more from an end-user’s point of view, attaching more importance to the criterion of “impact” with particular emphasis on effective management of the Baltic Sea. The BONUS+ Advisory Board gave three types of scores to each project (“++”, “+” or none), thus indicating the interest of the stakeholders and providing the BONUS EEIG Steering Committee with additional input for their final ranking of projects.

The result of the ratings of the BONUS+ Advisory Board is given in the BONUS+Call report (p11):

Panel Rating	Number of proposals	Nr. of proposals recommended by the AB
5.0	2	2
4.5	13	9
4.0	20	5
3.5	13	0
3.0	6	0
2.5	1	0

On June 18th the BONUS EEIG Steering Committee convened and discussed the results of the scientific review panel and the input from the BONUS+Advisory board. Steering Committee members had access to all reviewer’s statements and ratings. The BONUS EEIG secretariat prepared tables, where projects were sorted according to their overall

²⁸ See BONUS+Call Report, Appendix 11 for composition of the Advisory board

scientific ratings score, scores of the BONUS+Advisory Board were also indicated as well as a "rank", which was given to the projects by the CTF, according to the following scheme:

Rank 1	projects with a scientific rating of 5 and strong (++) support by the BONUS+Advisory Board;
Rank 2	projects with a scientific rating of 4,5 and no support by the BONUS+Advisory Board;
Rank 3-5	projects with a scientific rating of 4, and strong (++) support by the BONUS+Advisory Board;
Rank 6,7	projects with a scientific rating of 4, and medium (+) support by the BONUS+Advisory Board;
Rank 8	all other projects.

Available funds amounted to 22,13 Mio.€, which was, due to recent developments, less than the 23,3 Mio.€ that were initially assumed. Under this financial framework and on the basis of a comprehensive discussion the BONUS EEIG Steering Committee made the following decision:

- 1) All projects rated 5 and 4,5 were recommended for funding (15 applications);
- 2) from the projects with a CTF ranking of 3-5, one project was also recommended for funding;
- 3) two projects with a CTF ranking of 4 and 5 were recommended for a "waiting list".

The BONUS EEIG Steering Committee discussed possibilities for budget cuts in order to stay within the available budget. The Steering Committee finally agreed, that, due to several uncertainties regarding budgetary issues (see 5.3.2., p22) and due to the fact, that definitive decisions on budgets will be taken in the Steering Committee's meeting in October 2008, no definitive budget cuts should be recommended at the present stage. Rather, the BONUS EEIG Steering Committee decided to commit the task of budget reduction and adjustment of project workplans to the BONUS EEIG secretariat and its negotiations with project coordinators and national funding agencies.

The BONUS EEIG Steering Committee went through all 55 projects and took consensual decisions on recommendations for funding or rejection of each single project.

The topic included also discussion on the distribution of EU-funds and the handling of overheads as well the need and the possible role of additional funders:

5.2.3 Information of applicants of FP

All projects recommended for funding will put on the BONUS Homepage. Results of the Steering Committee meeting will be communicated to project coordinators and national funding agencies (national contact points). Three different letters will be sent electronically to the Project coordinators as soon as possible:

- Funded is recommended for funding
- Project is recommended to be put on a "reserve list"
- Project is recommended for rejection.

Project coordinators will receive no information on the suggested budget. Rather, they will be informed that adjustments of budget and workplan will be necessary and will have to be negotiated. The BONUS EEIG secretariat will get in touch with the national contact points and the project coordinators, readjustments could be done via the EPSS.

5.2.4 Feedback of Applicants of FP

A survey among all applicants of full proposals was performed by the BONUS EEIG secretariat via the EPSS, following a suggestion of the independent observer. Results are summarized in the BONUS+Call Report²⁹. Feedback was even lower than for LOIs; 53 applicants answered the questionnaire (13,2%).

Again, judgements (ratings) of the items asked (see 5.1.4, p13 of this report) were on the positive side. The results have to be treated with even more caution than for LOIs, regarding their “statistical” relevance. However, a trend is visible: Clarity of guidelines and amount of information as well as organization of the call and interactions with the BONUS EEIG secretariat were obviously viewed more positively than the workload, especially the time given for preparation of proposals and the interactions with national contact points. It could be questioned whether this trend is representative for the entire number of applicants. However, individual remarks gave additional useful insights (see 5.3.4. for a brief discussion).

5.3 Observations

5.3.1 Review

In general, the review process, both for LOIs and for full proposals can be viewed as carefully and well organized, meeting high standards of international peer review, as it is required for complex, multinational and interdisciplinary proposals, such as those submitted in the frame of the BONUS+Call.

1st Stage: Letters of Intent

The time frame for the evaluation of LOI can be considered as very short. Especially in those cases, where reviewers had to deal with more than 30 proposals, this must have put a heavy load on the reviewers, even when it is taken into account, that proposal size was limited to 7 pages and review statements were supported by the EPSS and strictly formalized:

Reviewers were requested to enter their ratings for the five criteria and an overall score, as well as a “brief explanatory statement”. For this statement, no further definition was given. These statements were usually very short in length, consisting mostly of a few sentences, sometimes only of a few words, such as “An excellent proposal!”. For proposals with a Finnish coordinator, an additional statement was required regarding the relevance of the proposal for targeted research funded by the Academy of Finland. The impact of this aspect for the funding decision was probably not clear to all of the reviewers.

A tight time frame such as the one in the LOI Phase of the BONUS+Call leaves virtually no buffer for accidents and emergency cases: The BONUS-EEIG Secretariat reported such a case, where a reviewer of LOI took sick without informing the programme management, and an evaluator had to be found to do 20 statements within less than one week. Increased

²⁹ BONUS+Call Report p.22f

remuneration, as in this case, is certainly a tool to cope with such situations and the EEIG-secretariat has to be applauded for its efficiency and success. On the other hand it demonstrates impressively the problems with short time scales for international peer review. Under these circumstances it is a strong indication for the efficiency of the EEIG programme management, that it succeeded in receiving virtually all necessary reviews (99,8%; only one report was not received³⁰).

In general, the review of LOI was well organized, but the impression is that a reduced workload for reviewers, both in terms of time given to prepare their review and in terms of proposal numbers for reviewing, would have been beneficial for the quality of reviews and the process.

Feedback of evaluators of LOI:

The feedback rate of reviewers for LOI was higher than that from the applicants: from 28 requests for feedback, 14 answers (50%) were received. Averages of ratings of the above mentioned issues on a scale from 1 (unsatisfactory) to 5 (optimal) were all well above average. The most positive ratings (average above 4) were received on interactions with the BONUS-EEIG Secretariat (4,7), evaluation guidance (4,3) and organization of the EPSS (4,3). The most critical issue, according to the numerical ratings was the workload/ time frame given for reviewing (score 3,4). The additional general remarks, however, gave useful insights about some key issues of the call from the reviewer's point of view, both in the positive and critical sense and can be summarized as below:

Interactions with the BONUS EEIG secretariat and guidance, especially the EPSS, and the BONUS web site, were viewed very positively by the reviewers of LOI. Also the 2-step evaluation procedure was appreciated.

Points of criticism were³¹

- LOI were considered as too voluminous, they probably contain too many subsections and redundancies.
- Layouts of LOIs differed considerably: although clear rules for size and structure were given by the Call, some applicants circumvented them by using small font sizes and fonts.
- High upper limit of proposal volume might have stimulated oversized applications.
- The time frame for preparing the reviews was considered as very short.
- Restrictions for the length of reviewer's comments could be problematic: instead of limiting, a required minimum size would be more favourable.
- Reviewers should know in advance (before they sign the contract) the amount of LOIs they are will have to review;
- The role of the evaluation process for the specific funding by the Finnish Academy of Science was not completely clear. It would have been useful to clarify better the criteria for the selection of projects that will be funded by the Academy of Finland.

³⁰ See BONUS+Call Report p.7

³¹The list represents an overview of various arguments, it should be viewed as input for discussions and considerations by the programme management and not as a "representative" summary of reviewer opinions.

2nd Stage: Full proposals

The review panel as well as the EEIG secretariat staff and CTF programme managers did an excellent job under the given circumstances, i.e. time restrictions, size of the panel, number of projects to deal with.

A problematic aspect for the review of full proposals again was obviously the tight time frame. Even with a given size limit of 20 pages for each proposal (which was explicitly appreciated by panellists), a reviewer had to study between about 120 to 240 pages of applications in less than 4 weeks to prepare his/her statement. It was hardly possible for reviewers to pay attention to other proposals than the ones she/he was appointed to. It was planned to prepare “merged statement” of the individual pre-statements of a proposals and make this statement available to the panellists in advance of the review panel meeting. Due to the tight time frame, this was not possible (see also comments of panellists below)

Preparation of and support at the Review Panel meeting by the BONUS EEIG staff and CTF programme managers was excellent. All documents were available in electronic form, panellists were provided with Laptops and pre-statements were displayed on a screen in the meeting room (very little paper work). Guidance of the meeting by the chairman and the BONUS-EEIG executive director was efficient and of high standard throughout the meeting.

Much attention was paid to handling Conflicts of Interest (COI). Panellists were selected carefully in order to avoid COIs. With some of the Programme managers and/or Members of the BONUS secretariat this was not possible. They simply did not participate in the discussions when a project, where they had a COI, was on the agenda and left the meeting room for the time this project was treated.

Projects were grouped according to the 7 key-research themes. This grouping was done by the CTF members, not by the applicants³². Projects were discussed by thematic groups, for each proposal the discussion started with initial comments of the two panellists in charge. The discussion of the panel was in general constructive and well structured, concise, and focussed. Ratings were not generally reconsidered (no doubling of the work of panelist’s in the pre-statements), but a consensus should be reached on the final written statements and the scoring of all main criteria, i.e.: Sci.Excellence, Implementation, Impact and the Overall rating; as well as the sub-criteria, individual ratings of panellists were occasionally modified according to the panel discussion. Programme managers actively took part in the discussion for clarifications regarding the final (merged) statements.

The panel took ample time for discussing each project; much time was invested in discussing ratings of criteria and sub-criteria. In general, numbers (ratings) played a very prominent role in the discussions of the panel. In several problematic cases (e.g., diverging opinions of reviewers or missing second reviewer statement, when a reviewer had to cancel her/his cooperation) more in depth discussions on scientific aspects of proposals took place. In several of such problematic cases, panellists were appointed as additional reviewers during the meeting. In this way and by discussing each project in the panel, the ERA-requirement of at least three experts reviewing each project was met. It was, however, stated several times, that more than two reviewers per project would have avoided problems and facilitated the discussion. Regarding this problem, it was also stated, that external input from additional

³² See also BONUS+Call Report p.9ff for a detailed description of the panel work

experts (written statements) would have been useful in several cases: some of the panellists felt that for an adequate judgement of several (few) projects, more specific expertise would have been helpful.

It could be (and was) questioned, whether grouping of proposals according to research themes was beneficial for the discussion of the review panel. Given the fact, that all experts were present in one panel and that there was no earmarking of money for each of the key research themes, an alternative procedure would probably have supported (and speeded up) the work of the panel better (see also comments of panellists below). It was also not clear to the panellists, how and to what extent the written statements and ratings of subcriteria will be used in the final decision of the Steering Committee.

Due to the short time frame and the great amount of work, a wrap up of the meeting and its results was done after the meeting by e-mail. Nine out of 11 reviewers answered by June 16th, their comments are briefly summarized below:

Feedback of evaluators of full proposals:

The panelists were in general very positive about the organization of the review process, the meeting and the interactions with and support by the BONUS EIIG secretariat.

The initial screening process of LOIs was considered as a successful mechanism for the selection of appropriate projects for the second round. The panel review process was regarded as well organized, and it arrived at a very reasonable and defensible outcome; evaluation criteria were appropriate and effective. Especially the work of the Chairman throughout the review panel meeting was very much applauded. It was mentioned that the participation in this review was both challenging and at the same rewarding. The different proposals managed to put together a coherent group of people in their consortium. This model should be maintained and developed by the BONUS programme.

The panelists found, however, that there was room for improvement. Main Issues from their point of view were:

- All panelists should have been aware not only of their “own” proposals, but also at least of the abstracts of all proposals (reading all proposals would have been impractical). In this way, panelists would have become more familiar with the general scope and objectives of the research and quality of the applicants of all proposals. The panel would have been able to overcome some sticking points and difficult-to-resolve conflicts and the panelists would have been engaged more effectively in collective evaluation.
- If the panelists would have read all proposals, all of them should have been able to judge the overall approach even if it was outside their areas. They could all have come up with the 3 main scores plus an overall score for the projects.
- The number of two panelists appointed to each proposal was considered as problematic. Having 3 reviewers per proposal would have helped overcome the difficulties and impasse. Especially in cases of controversial proposals, or in (the few) cases, where a panelist could not attend the meeting or failed to give a proposal serious consideration, a third panelist reading such proposals would have been helpful and should have been assigned at least one week before the meeting.

- The organizers should have insisted more definitely that pre-statements were provided in reasonable time before the meeting. The BONUS_EEIG would then have had time to collate the scores and give access to the merged pre-statements before the meeting to all of the panellists (as planned; or send the merged pre-statements to the panelists). This and the possibility to make comments on line prior to the meeting, would have enabled the panel to focus on a few problem projects might have sped things up considerably.
- the grouping of the proposals by themes was considerer somewhat problematic. The idea of grouping itself was appreciated, because it encourages comparison of proposals within categories, but the grouping should have been known to the panelists before the meeting. This would have enabled the reviewers at least skim all proposals were in the categories in which they were most interested. It would have been useful to have clarity on whether, and to what extent, the Steering Committee is going to use the categories
- In the discussion, from each “team” of panelists in charge of a project, one “lead reviewer” should take the task of introducing the project and the key statements of the written reviews.
- For the sake of maximum transparency, a written documentation of the panel discussion could be prepared, that could be conveyed to the applicants after approval by the relevant panelists involved.
- Time pressure in the meeting was high. Thoughts should be given eventually on how to cope with this.

In general, the majority of the independent observer’s impressions were supported by the feedback of reviewers, both in the review of 1st and 2nd stage proposals and useful comments were given. A comprehensive set of recommendations for possible improvements is presented in 5.4.1.

5.3.2 Decision

Letters of Intent:

In its meeting on March 12th, the Steering Committee dedicated ca. 1,7 hrs of 7 hours total meeting time to the discussion about the results of the LOI evaluation.

Contents of the written statements were not considered in the discussion of the Steering committee. In the preparation of the CTF, as well as for the decision of the SC, virtually only the overall scores were considered. The decision of the Steering Committee on which projects were invited to submit a full proposal, was based almost exclusively on averages of the scores of the two to three reviewers. Only in five out of 149 LOIs, a more detailed discussion took place. It has to be admitted, that it would certainly have been not possible for the Steering Committee to go through all LOIs and have detailed discussions. On the other hand, useful input for the ranking of LOIs was missed by not considering the rating of subcriteria. Thus, the selection process for the 1st stage LOIs had more the character of a “pre-screening” than that of a review.

Full proposals

The BONUS-EEIG Steering Committee meeting on June 18th lasted from 09:00 a.m. to ca. 04:00 p.m. The discussion on the results of the review panel meeting and the input of the BONUS+ Advisory board was one of 13 topics, among them important ones with a definitive need for discussion, such as the BONUS EEIG Communication strategy, the BONUS 169 Action Plan and the Association Agreement between EEIG and the Russian Foundation for

Basic Research (RFBR). Thus, all in all, for the discussion about funding recommendations, a little more than about two hours were available.

The preparation of the meeting by the BONUS EEIG secretariat and the BONUS CTF was excellent, the initial presentation by the BONUS EEIG staff members provided a further solid basis for the discussion. This enabled the Steering Committee to invest a relatively small amount of time for this important task.

Much and careful attention was attached to handling conflicts of interest (COI). Committee members who indicated a COI left the room, when the respective projects were discussed or the when the funding recommendation was decided.

The Steering Committee quickly reached a consensus, that all 15 projects that received a scientific rating of 5 or 4,5 should be recommended for funding. The decision was based exclusively on the preparation of the BONUS EEIG secretariat and the CTF, i.e. the overall ratings and the ranks given by the CTF. As in the LOI stage, ratings of sub-criteria as well as contents of reviews and/or proposals were not discussed or taken into account.

The discussion about recommendation for funding of additional projects required more time. Three projects ranked 3-5 by the CTF were discussed and these were the only cases, where details of the panel review (rating of sub-criteria, cornerstones of reviewer statements, which were prepared by the BONUS EEIG secretary) were considered. A consensus on the recommendations was reached (see 5.2.2., p17), with hesitations of some panel members, but the available budget was exceeded.

Thus, much time had to be invested in the discussion about possibilities for budget cuts. The discussion was intense and sometimes controversial. There were strong arguments, that the Steering Committee should make recommendations for budget, despite of several uncertainties (i.e.: national decisions not available yet, decision on the distribution of EC-funds open, handling of Overheads under discussion, co-financing of additional funders in question) and the fact, that definitive decisions on budgetary issues are to be taken in the meeting of the Steering Committee in October 2008. It was stated, that cuts should be carefully considered and that top quality projects should not be affected. Several models and scenarios were developed, however, no consensus was achieved and no definitive decision for suggesting budget reductions was taken.

In this respect, it was striking that the models discussed all had an overall “razor-blade approach”, including “gradual cutting”, but neither reviewer statements nor applications were taken into account. This was somewhat amazing, because ample additional input would have been available: in the review panel meeting on May 28th and 29th, it became quite obvious, that some proposals had submitted rather generous financial plans with a considerable potential for cuts. In addition, all sub-criteria were rated by the reviewers. All this information was not taken into account. It is not likely, that the decision of the regarding funding recommendations would have changed basically, if this additional information would have been considered, but certainly the EEIG secretariat would have been provided with better support and an improved basis for its forthcoming negotiations with national funding agencies and applicants. In addition, using additional input from reviewers in the case of difficult decisions would have paid more adequate tribute to their careful and committed work.

The discussion of the Steering Committee clearly showed, that considerable discussions on several topics are still needed with the EU and other stakeholders, such as on the handling of project overheads³³ as well as the role of additional funders. These and other problems have an impact on the final funding decisions in October and will have to be solved. All this represent certainly a great challenge for the BONUS EEIG secretariat and underlines its central role in the evaluation and decision making processes.

Concluding remarks on the decision processes

The observations regarding the decisions in the course of the evaluation of the BONUS+Call are summarized as follows:

- Decisions of the BONUS EEIG Steering Committee were based on solid grounds and carefully considered, they were as impartial and objective as possible under the given circumstances,
- The review process was sound, impartial and transparent, it was state of the art and of high quality according to international standards. It provided much specific and valuable information, both for the decisions of the Steering Committee as well as for the BONUS EEIG programme management and for applicants.
- Decisions were well prepared and excellently supported by the EEIG administrative units, i.e. the BONUS EEIG secretariat and the BONUS CTF. Both bodies obviously play a central role for the decision process as well as for the implementation of the decisions.
- In both steps of the evaluation procedure, however, the Steering Committee did not consider valuable information from the reviews, This information would have been useful for further improvement of an already very good decision making process.
- At the time of the preparation of this report, several crucial questions regarding the start of the projects were still be open. It will certainly be a challenge for the BONUS EEIG programme management to ensure that the results of the excellent evaluation process will be taken into account adequately when projects are actually started.

5.3.3 Information of applicants

The information of applicants was well planned and comprehensive. The web-based approach is a great asset, in both stages of the evaluation process, the proposals that were recommended for funding by the Steering Committee were placed on the BONUS-Homepage. Project Coordinators and national funding agencies received written information about the results of the review and the decision of the Steering Committee as soon as possible. The information included the reviewer statements and rating 8 in the case of LOI) and the consensus statement (an ratings) of the review panel on each full proposal. For the latter, the BONUS EEIG secretariat will get in touch with the national .contact points and the project coordinators, in order to start negotiations on budget and readjustments of workplans. For this, the EPSS system will again serve as a useful tool.

³³ It is planned to transfer EU funds to national Funding Agencies in order to avoid double contracting, etc. and administrative overload. Negotiations with the EU concerning overheads: the aim is that overheads should be paid according to the respective national rules (problems occur when these rules deviate from EU rules, this problem will have to be solved before the final funding decisions of the Steering Committee in October 2008)

5.3.4 Feedback of Applicants

Results of the survey among applicants underline their positive view of the work of the BONUS EEIG secretariat and the organization of the entire process, especially the EPSS. Also decisions were generally considered as fair in both stages of the evaluation process, although some criticism on the transparency was advocated. The two-stage evaluation process was very much appreciated.

Repeated and therefore probably important criticisms and/ or suggestions were:

- Short time frames for preparation of proposals (especially full proposals).
- In the case of the LOI phase, the extension of the call just one day before the initial deadline was heavily criticized. There were good reasons for that, as pointed out by the BONUS EEIG secretariat, but nevertheless acceptance of this measure was obviously low. Better communication might have helped.
- Application guidelines: a publication of different standards (e.g.: personnel wages) in different countries on the BONUS homepage would have been very helpful for project coordinators. They also would have appreciated access to the proposals of participants (especially for work on budgets). Several minor points were made for possible further clarifications of guidelines, that should be considered.
- Some scientists/ laboratories are participating in several projects. According to some applicants' view, this may cause problems once the decision on funding is made. It was also critically mentioned that several rather similar proposals were invited for the second round and that no attempts were made to stimulate, e.g., merging of highly similar initiatives. In an open competition it is a delicate task to interfere with the planning of applicants. The approach of the BONUS EEIG management, to trust reviewers that they would identify and inhibit unjustified parallel research approaches, was certainly appropriate.
- It was mentioned, that chances for projects in pure basic research were probably reduced due to the emphasis on interdisciplinary work, defined as the combination of natural sciences and economy. In a future call this might be reconsidered.
- Some statements criticized a lack of expertise of reviewers and quality of the reviews. This is quite a common criticism from the side of applicants in every peer review process, but here it could be taken as a further indicator for the need to increase the number of reviewers in a future call.

The survey among applicants for full proposals was probably performed too early. At the point of time it was performed now, several important steps were still missing, i.e. the decision of the BONUS EEIG Steering Committee, the decision of national funding agencies and the decision of the BONUS EEIG Steering Committee on the distribution of EC-funds. A survey at a later time may reveal additional insights (see 5.4.4).

5.4 Recommendations

5.4.1 Review

The review process was of high quality according to international standards..

The basic design of a two step procedure should be maintained.

The organization and the support of both the application as well as the review process by the BONUS EEIG secretariat and the EPSS was excellent and effective and should be maintained.

Recommendations below aim at a further improvement of an already high quality process and are based to a great extent to criticism and/or suggestions of reviewers and applicants. Possible improvements of the evaluation procedure range from some very minor points, that could easily be realized, to rather major issues, which would require a partial redesign of the process, mainly in terms of

- time scales,
- number of reviewers involved,
- organization of the review process.

Review of Letters of Intent:

- An extension of the time frame should be considered. Having a more relaxed time schedule would probably avoid several problems such as lack of time buffer for unforeseeable reviewer drop-outs.
- Increasing the number of reviewers of LOI. This would reduce the workload for individual reviewers and enable them to deal better with the information contained in the LOIs in their present form as well as even more specifically tailored expertise for each proposal (the latter was obviously not a significant problem).
- Reconsider minor modifications of guidelines for reviewers (limits for length of written statements, clarifying the requirements for the proposals funded by the Academy of Finland, etc.)
- Clarify rules for the layout of LOIs (e.g., font and font size),

Review of Full Proposals

- An extension of the time frame should be considered. This would solve several problems, e.g.:
 - Reviewers would be able to view more or even all projects, which would be beneficial for the panel discussion;
 - Pre-statements could be submitted in due time before the panel meeting;
 - The BONUS-EEIG staff would have time to collect scores and prepare merged statements and make them available to all panellists in due time before the meeting;
 - Reviewers would have time to comment on the pre-statements. In this way, problematic cases could be identified before the panel meeting, the panel discussion could then focus more in depth on these proposals.
 - Grouping of proposals could also be known to the reviewers before the panel discussion and enable a better preparation.
- Extending the coverage of the scientific spectrum of proposals by reviewer expertise. This was certainly not a severe problem, that would question the outcome of the review process, but this issue was critically mentioned and it would certainly be worth giving it some reconsideration for a possible second round of applications. Several ways to solve that problem can be suggested.
 - Combine written review with panel review. External reviewers, with specific expertise for each project, could be asked for a written review (e.g., 3 per proposal). The panel would have then a much more solid basis and broader spectrum of opinions as a basis for its discussion and recommendations

- Stick to panel review exclusively, but increase the number of panellists. This would, of course, mean that the review panel would have to be split in sub-panels or that various thematic review panels would have to be implemented. Grouping of projects into, e.g., two or three main clusters, e.g. ecology, climate change and geochemistry and policy and governance issues could result in three panels with about 8 to 10 reviewers each, leaving each panel with about 20 (+/- 5) applications. This procedure would have several advantages:
 - panellists could cover the scientific spectrum of applications more completely (closer to each project);
 - Each panellist could be expected to comment on each of the projects and give ratings;
 - Individual ratings could be the basis for a pre-ranking (categorization of projects) before the panel meeting and identify problematic cases in between the “excellent” and the “bad” ones (see below).³⁴ Having additional input from external reviewers would facilitate this task even more.
 - This would enable shorter duration of panel sessions while leaving more time for discussions and, last but not least, relax the situation for the supporting staff members.
- For a review done by different panels, a considerable challenge would be to ensure consistency of work in the three panels. This could be solved by holding the panels on three subsequent days and having a “standing committee”, consisting, e.g. of one scientific chairperson, who chairs all panels and is supported by a team of programme managers and/or EEIG staff members. Obviously, something in this direction was already considered in the initial planning of the review process: the original BONUS+description of work³⁵ states, that one of the experts should attend “all Panels” and produce a report of the evaluation process for the Steering Committee.
- It would probably better support the work of the review panel, if applications were grouped according to review results (scores) and not to themes (see 5.3.1). In this way, a categorization in, e.g., three categories A- to be funded, B- to be discussed, -C- not to be funded, which would give an overview at the beginning of the RP meeting about the amount of “A” ranked projects and hopefully give more time to concentrate on the discussion cases.
- Such a pre-ranking would provide the Steering Committee with an even more solid basis for its final decision
- Finally, as a minor point: the warm-up time for the panel session could be shortened, if part of the get-together of the panellists in the evening before would be used for briefing and development of a common understanding on the operative procedure for the meeting. In any case, having a clear suggestion and agreement on how to proceed in the panel session would certainly help.

³⁴ The FWF has very recently made very good experience with such a procedure when managing the international peer review of a federal ministry programme with a volume of 50 Mio. € for financing University infrastructure, dealing with about hundred applications from all scientific and scholarly fields, including the arts.

³⁵ Appendix 1, BONUS+description of work p 22

5.4.2 Decision

Letters of Intent:

The Steering Committee should consider investing more time in the discussion of the results of the review. The decision on LOIs to be invited was only one of 13 items on the list of agenda. This should not imply that the decision was not based on solid grounds, the preparation by the CTF was certainly excellent, but the Steering Committee did not make use of a lot of additional information, such as

- ratings of subcriteria;
- written comments of reviewers.

Considering these informations, a more differentiated basis for the ranking of LOIs would be available, and this may have an impact on the decision and would probably increase transparency of the process.

Full proposals

The BONUS+Advisory board focussed its recommendations on the projects with highest scientific rating. It is recommended, that this be formally regulated: recommendations of the stakeholders should be “per definition” restricted to projects of high scientific quality and serve only as an additional input for the decision of the Steering Committee.

In this respect, the decision procedure of the Steering Committee should be maintained, attaching greatest importance to scientific quality and using other inputs only for “fine-tuning”.

The Steering Committee should consider investing more time also in the discussion on full proposals. For the discussions of tricky issues like budget cut, valuable information was not taken into account. It was already mentioned, that considering this additional information would not have changed the basic outcome of the Steering Committee’s decision, which was certainly well founded. Confidence in the preparation of the meeting was absolutely justified, but considering the far-reaching consequences of the Committee’s decision, it would probably have been worth going more into depth of reviewer comments and make use of their input.

It is recommended to take this into consideration for the final decisions in October: the reviewers made concise and specific statements and ratings on all of the 15 criteria that were defined for judging the quality of full proposals and stay back from “razor-blade” approaches of cutting budgets. If this information is not to be used, it could be considered to formulate at least the sub- criteria as a sort of “background questions” and limit the requests for definitive statements and ratings to the main criteria and the overall rating.

5.4.3 Information of applicants

Information of applicants was as transparent as possible and adequate. There was virtually no criticism on that aspect.

In the case of applicants for full proposals, it may turn out as a problem, that no information and/or benchmarks for the granted budget was given after the decision of the Steering Committee and all is left to negotiations between the BONUS-EEIG secretariat, applicants and funding agencies. It is recommended for future calls to give at least some indications together with the funding recommendation, where negotiations of budgets for each individual project should start (or should aim at).

5.4.4 Feedback of Applicants

Feedback rate in the frame of the surveys was rather low in both stages of the evaluation process. Probably a better communication of the aims and value of this feedback may stimulate the participation in such surveys; the information that can be collected by this way may be worth the effort.

It would probably have been better to collect feedback from the applicants for full proposals at a later time: it would probably be more effective (informative) after the decision of the final Steering Committee or even after the entire process is completed i.e., at the start of the first projects in October 2008. This would reveal insights also on other aspects of the process, i.e. the decisions of national funding agencies, decisions of the BONUS EEIG Steering Committee on distribution of EC-funds, etc. For this task, a modification of the questionnaires is probably necessary. It is not recommended to repeat the survey in the frame of this call, but this item should be discussed for forthcoming calls.

6 Next steps

The use of the results of an evaluation process may have implications on modifications of this process for further evaluations. In this sense, a few very brief comments are made on the forthcoming steps in the implementation of the BONUS+ programme after the decision of the BONUS EEIG Steering Committee.

6.1. Decisions

A rather complex set of decisions will have to be taken subsequently to the decision of the BONUS EEIG Steering Committee on full proposals. The complex interactions between BONUS EEIG, national funding agencies, the EC (e.g., the handling of EC funds), Russia and other stakeholders are regulated in several documents³⁶. However, the meetings that the independent observer attended showed that, regarding operational details, many questions are still open. This and the fact, that the sum required for funding the positively recommended projects exceeds the sum available, require challenging negotiations and adjustments of projects (budgets and workplans) that potentially could sort of “dilute” results of the review. Faith has to be put in the BONUS EEIG secretariat and the Steering Committee, that the “spirit” of the excellent evaluation is taken into account when projects are finally implemented.

6.2. Reporting/ Monitoring/ Evaluation

Reporting and monitoring are basically outlined in the minutes of the 2nd CTF meeting on Jan 9-11th 2007 (see Appendix 1) a dissemination (communication) concept was thoroughly discussed in the meeting of the BONUS+Steering Committee on June 18th. The BONUS+MOU states that a programme evaluation will be done by the BONUS+ Mid-term and

Final Evaluation Boards. The Evaluation Boards will review programme implementation and assess its outcomes. According to the concept, this evaluation should focus on the following:

- the accomplishment of the programme’s objectives
- scientific quality of programme outputs
- researcher training and the advancement of research careers

³⁶ See Appendix 1, The BONUS+ memorandum of understanding, BONUS description of work, BONUS+ Memorandum of Understanding with Russia, BONUS internal Regulations and Statutes

All measures seem to be adequate and necessary. Detailed concepts should be prepared by the BONUS EEIG secretariat in time and set out detailed and clear regulations and criteria and avoid an overload of reporting for researchers. The EPSS system will certainly serve as an excellent support also for this purpose.

7 Concluding remarks

The BONUS+Call is an extremely challenging undertaking. It is a huge experiment in transnational funding and impressively shows the complexity of such an endeavour. The complex research plan as well as the ambitious goals required a careful review procedure of high international standard, ensuring

- high scientific quality of the selected projects,
- impartiality and independence of the review procedure and
- a fair and impartial decision making process.




As a conclusion it can be stated, that, from the independent observers point of view, this overall goal has been successfully met by the BONUS+ Call management. As always, there is room for improvement, but this does not detract from the generally high quality of the evaluation process. The received feedback is already well registered by the Call management, it can be expected that the quality of the evaluations of future calls will even improve.



There are still problems ahead and it is to be hoped that the implementation, the start and the running of the projects and subsequently the research will be as successful as the evaluation and management procedure so far.

Thus, the BONUS+ project has a good chance to achieve one of its goals behind funding high quality scientific research, i.e., to serve as a model for the implementation of similar transnational projects in other marine regions of Europe.

Annex 1: Documents relevant for the independent Observer

EU and other contracts, rules and regulations

-  [Bonus+ Discription of Work](#)
-  [BONUS+ Memorandum of Understanding](#)
-  [BONUS+ Memorandum of Understanding Russia](#)

-  [Contract for evaluators](#)
-  [Conflict of interest Rules](#)

BONUS EEIG Steering Committee

Members

- [1st Meeting 21 August, 2007, Stockholm \(Sweden\)](#)
- [2nd Meeting 5 December, 2007, Gdynia \(Poland\)](#)
- [3rd Meeting 12 March, 2008, Helsinki \(Finland\)](#)

-  [Internal Regulations of BONUS EEIG](#)
-  [Agreement on EEIG Statutes](#)

BONUS+ Advisory Board

Members

BONUS+ Call Task Force

Members





- [1st Meeting 10-11 July, 2007, Kalmar \(Sweden\)](#)
- [2nd Meeting 9-11 January, 2008, Helsinki \(Finland\)](#)
- [3rd Meeting 4-5 March, 2008, Helsinki \(Finland\)](#)
- [4th Meeting 9 June, 2008, Helsinki \(Finland\)](#)




Network Steering Committee

Members



- [13th NSC meeting 30 May 2007, Copenhagen, Denmark](#)
- [11th NSC meeting 23 January 2007, Helsinki, Finland](#)
- [10th NSC meeting 2 November 2006, Bonn, Germany](#)
- [9th NSC meeting 8 June 2006, Espoo, Finland](#)
- [8th NSC meeting 2-3 March 2006, Riga, Latvia](#)
- [7th NSC meeting 25 January 2006, Copenhagen, Denmark](#)

BONUS+ Call

-  [BONUS-169 Baltic Sea Science Plan and Implementation Strategy \(26.3Mb\)](#)
-  [Call text](#)
-  [Timetable of the Call process](#)
-  [Table of actions](#)

-  [List of submitted Letters of Intent](#)
-  [Base reports of submitted Letters of Intent](#)
-  [Results of the BONUS+ Call Letter of Intent phase](#)

BONUS+ Call feedback (questionnaire for Applicants and LOI Evaluators)



-  [Call Feedback - Applicants open questions](#)
-  [Call Feedback - LOI Evaluators open questions](#)

BONUS Electronic Proposal Submission System (EPSS)

The Electronic Proposal Submission System (EPSS) used in BONUS+ Call for Proposals 2007 is an internet-based application providing a work space for both a consortium to prepare and submit BONUS+ proposal and for evaluators to evaluate submitted proposals jointly. Access requires only a standard web browser, no special software has to be installed on the users' computers.

Link to EPSS is found at <https://proposals.etf.ee/bonus> .

Evaluators

-  [Information about the Evaluators \(updated 4.2.2008\)](#)
-  [Instructions for the LOI Evaluators](#)

Annex 2: Definition of Conflicts of Interest for Members of BONUS-EEIG management bodies

A Member (of a BONUS-EEIG body) shall be disqualified if he/she in any way benefits or will be disfavoured from the approval or rejection of a proposal in the Call process. A Member shall also be disqualified in the following circumstances:

The Member:

- is applying for funding from the Call
- has close collaboration with the applicant (e.g. has co-authored and published an article
- with the applicant during the past three years, has been involved in the preparation of the application, or is involved in the publication or application of the results)
- has been a superior, subordinate or instructor of the applicant during the past three years
- is currently applying for the same post as the applicant
- is a Member of the Board, Council or corresponding governing body of an organisation,
- which has submitted an application to the Call
- is a close person to the applicant. A close person is:
 - the spouse (also de facto), child, grandchild, sibling, parent, grandparent or a person
 - otherwise especially close to the Member (e.g. fiancé/e or a close friend), as well as their
 - spouses (also de facto),
 - a sibling of the Member's parent or his/her spouse (also de facto), a child of a sibling, or
 - previous spouse (also de facto),
 - a child, grandchild, sibling, parent or grandparent of the Member's spouse as well as
 - their spouses (also de facto), a child of a sibling of the member's spouse,
 - or a half-relative comparable to the above mentioned.
- The Member is also disqualified if his/her impartiality may otherwise be endangered, or if he/she
- feels that there is a Conflict of Interest and therefore is disqualified to participate in the Call
- process.
- In the case of two stage Call process, the disqualification, which was identified in the first stage,
- expires if the application does not proceed to the second phase.

All cases of Conflict of Interest, must be notified to the BONUS EEIG Secretariat as soon as possible they are revealed.