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Personaalse uurimistoetuse rühmagrandi taotluste hindamisjuhend Guidelines for evaluating personal research funding applications for team grants

I Introduction

The award of personal research funding for start-up grants has been stipulated in the "Conditions of and Procedure for Application for Team Grant".

These "Guidelines for evaluating personal research funding applications for team grants" (guidelines) is a document which specifies the evaluation criteria set forth in the "Conditions of and Procedure for Application for Team Grant".

II Relevant terms

- 1) Personal research funding means funding allocated for a high level research and development project of a person or a research group working in a research and development (R&D) institution, incl. the research scholarship of Master's students and Doctoral candidates (as specified in the Organisation of Research and Development Act). Personal research funding comprises three categories of grants corresponding to different levels of research career: postdoctoral grants, start-up grants and team grants:
 - A postdoctoral research grant is a grant to support launching a research career of persons with a doctoral degree or equivalent qualification at a strong research and development institution or in a high level research group either in Estonia or abroad.
 - A start-up research grant is a grant to support the researchers with initial research experience to launch independent research career at an Estonian R&D institution, to set up their research group and to contribute to educating the next generation of researchers (incl. PhD students).
 - A team grant is a grant to support researchers in continuing their research career at an Estonian R&D institution, ensuring high level research, leading a strong research group and educating the next generation of researchers (incl. PhD students).
- 2) **A research project is** a description of research activities with a clearly defined and justified research problem/topic and the methodology to address the problem/topic.
- 3) A Principal Investigator (PI) is a researcher who applies for a team grant, start-up grant or a postdoctoral grant and has received consent from a host institution.

III Criteria for applying

1. Principal Investigator of a team grant

A Principal Investigator of a team grant is a person who:

- 1) has been awarded a doctorate or who has qualifications equal thereto; and
- 2) at the time of implementing the research project, is employed full-time at the host R&D institution.

A Principal Investigator who is employed only part-time at an R&D institution can be considered eligible by the Evaluation Committee if this does not jeopardize the successful realization of the research project.

2. Application

The application for a team grant (hereinafter application) shall include the following:

- 1) the Principal Investigator and other research staff;
- 2) the title of the research project;
- 3) a short summary of the project;
- 4) the requested project period;
- 5) the general theoretical background to the research project;
- 6) the main objectives of the research project, hypotheses and/or research questions, description of methods, and the work plan, incl. tentative annual work plans and the availability of research infrastructure for achieving the objectives of the project.
- 7) the expected results and their potential applicability, importance for Estonian science, economy and society as well as possible future research directions;
- 8) the use of research methods that require review or approval from a human ethics or a bioethics research committee (If the corresponding approvals are obtained by the application deadline, applicants are asked to attach them to the application).
- 9) a confirmation that research ethics principles will be followed (including as they are stipulated by the host institution) and an explanation how project data will be managed;
- 10) the grant type applied for according to the set grant volumes and its justification, incl. the distribution of direct costs:
- 11) a description of previous research and development activities in the last 10 years and the track record of the PI in particular, indicating the PI's personal contribution to the publications linked to the application (or of a selection from thereof);
- 12) information on Estonian and international cooperation (incl. research projects) in which the PI has participated in the last 10 years, indicating the PI's personal contribution to the projects linked to the application (or of a selection from thereof);
- 13) the previous team leadership and supervision experience of the PI;
- 14) the role and task division of the senior research staff involved in the project;

The research project should be described in max. 20,000 characters (incl. the general theoretical background, justification, the main objectives of the research project; hypotheses, description of methods, and the work plan; consideration of ethical issues involved in the proposed research; expected results and their potential impact, possible future research directions, description of the previous research and development activities and the track record of the PI).

IV Evaluation

Grant applications shall be evaluated by the Evaluation Committee of the Estonian Research Council based on the well-reasoned opinions of the individual reviewers and expert panels. The following evaluation criteria will be considered:

- 1) justification for the research project, incl. clarity and ambitiousness of objectives, originality and novelty, potential applicability of the expected results, taking into account the specifics of the research field;
- 2) feasibility of the project (research plan), incl. methods, resources, infrastructure;
- 3) the competence, expertise and potential of the PI and the research team to carry out the proposed research project;
- 4) the potential impact of the project (inter- and multidisciplinary issues, collaboration, supervision of younger researchers, societal challenges, etc);
- 5) importance for Estonian science, society and economy;
- 6) ethical considerations and data management issues;
- 7) justification for the applied grant type.

V Rating scales to be used in the review

Rating scales

A five-point rating scale is used in evaluating sections 1–5 of the application (outstanding, very good, good, satisfactory, or unsatisfactory). The evaluation is provided to a level of precision of 0.5 points, i.e. intermediate values like very good–outstanding, good–very good, etc. can be used.

An undifferentiated rating scale (appropriate, not appropriate) is used in evaluating sections 6 and 7 of the application.

The numeric values for evaluating sections 1–5 in the drop-down menu are as follows:

- Outstanding (5);
- Very good (4);
- Good (3);
- Satisfactory (2);
- Unsatisfactory (1).

The marks for evaluating sections 6 and 7 are as follows:

- Appropriate;
- Not appropriate.

The final score can range from 5 to 25 points.

Threshold

Research projects which receive less than three points for section 1, 2, 3, 4 or 5, and/or are assessed as 'not appropriate' in section 6 and/or in section 7 do not qualify for funding.

When evaluating applications, reviewers should take into account the following guidelines.

VI Evaluation criteria to be used for reviewing team grants

Please make comments for all criteria.

1. Justification for the research project, incl. originality and relevance of the idea, its potential contribution to the development of the research field; clarity and ambitiousness of objectives; potential applicability of the expected results, taking into account the specifics of the research field

Guiding questions

How significant is the project scientifically? To what extent is the research idea original and/or relevant to the research field? To what extent are the objectives ambitious?

Are the objectives, hypotheses and/or research questions appropriately considered and presented? Other comments on Section 1.

Rating scale for Section 1:

Outstanding

The research ideas are highly original.

The application addresses crucial/cutting-edge research questions or knowledge gap, and/or has a significant impact on the development of the economy and society. The objectives are very clearly articulated and justified. The hypotheses and research questions are very well elaborated. Potential scientific or methodological problem areas are very well addressed.

An internationally competitive research project.

Very good

The project addresses an important research question or knowledge gap, and/or has a considerable impact on the development of the economy and society. The objectives are clearly articulated and justified. The hypotheses and research questions are mostly well elaborated. Potential scientific or methodological problem areas are well addressed.

An internationally competitive research project.

Good

The application addresses a worthwhile research question or knowledge gap, and/or has a potential impact on the development of the economy and society. The proposed research is scientifically motivated, the hypotheses and research objectives need some additional elaboration. Potential scientific or methodological problem areas are addressed to some extent.

Satisfactory

The application addresses a research question or knowledge gap, and/or societal impact with some added value. Justification needs additional clarifications and adjustments. The hypotheses and research questions need major additional elaboration. Potential scientific or methodological problem areas need better addressing.

<u>Unsatisfactory</u>

The proposed topic has been exhaustively studied. Limited likelihood of new knowledge generation.

A poorly defined research topic, lack of clear hypotheses and research questions. Potential scientific or methodological problem areas are weakly addressed.

2. Feasibility of the project (research plan), incl. methods, resources, infrastructure

Guiding questions

Is the research plan clear and appropriate for its stated purpose and the elaboration of tasks justified and appropriate?

Are the scientific methods feasible and suitable for the planned research? How well the PI acknowledges potential scientific or methodological problem areas?

Does the research environment, incl. research infrastructures, support achieving the objectives of the proposed research project?

Other comments on Section 2.

Rating scale for Section 2:

Outstanding

The research plan is impressive. The tasks are very well justified, clearly described and appropriate.

The application includes original methodology and/or design (if appropriate). The methods are very clearly described, up-to-date, very well-articulated and highly relevant for achieving the objectives.

The research environment and infrastructures are optimal achieving the objectives of the proposed research project.

Very good

The working hypotheses, methods and the work plan are clearly articulated and justified.

The division of subtasks/subtopics is clear and justified and supports the achievement of the overall goal. The application includes original methodology and/or design (if appropriate). The methods are up-to-date and relevant for achieving the objectives.

The research environment and infrastructures are appropriate for achieving the objectives of the proposed research project.

Good

The working hypotheses and methods are articulated and justified. The research plan needs some clarification.

The division of subtasks/subtopics is presented well and the overall goals can be achieved, but certain improvements and adjustments are still necessary.

A methodologically sound study. The methods are in general up-to-date and relevant for achieving the objectives.

The research environment and research infrastructure are appropriate for achieving the objectives of the proposed research project.

Satisfactory

The working hypotheses and methods are somewhat articulated and justified. The research plan needs major improvements.

The division of subtasks/subtopics is satisfactory but additional clarifications and adjustments are inevitable. It is not clear whether the proposed approach supports the achievement of the overall goal.

A methodologically sound study but some issues require revision. The methods are somewhat articulated and justified, not very up-to-date and/or innovative.

The research environment and research infrastructure are appropriate for achieving the objectives of the proposed research project.

Unsatisfactory

The working hypotheses and methods are weakly outlined. The research plan needs profound revision. The division of subtasks/subtopics is poor and hardly supports the achievement of the overall goal.

The methods seem inadequate for achieving the overall goal, not up-to-date nor innovative.

The research environment and available research infrastructure seem not fully support achieving the objectives of the proposed research project.

3. Competence, expertise and potential of the Principal Investigator and the research team

Guiding questions

What are the merits and scientific expertise of the PI? Are the competencies of the PI appropriate and sufficient for the proposed project?

Are the size and composition of the research team justified and optimal to achieve the research objectives and guarantee the sustainability of the research topic?

Is the PI's experience in leading research team(s), supervising young researchers and participating in national and/or inrternational projects sufficient for carrying out the planned research successfully? What about the research team members?

Other comments on Section 3.

Rating scale for Section 3:

Outstanding

The PI is an eminent researcher whose previous research results have been internationally widely acknowledged over the last 10 years (*The publications and/or monographs are at an outstanding international level. Articles are published in the best peer-reviewed journals or proceedings indexed in the leading databases in the field. The impact of the PI (where appropriate, bibliometric data such as number of citations; impact factor of the journals where articles are published) is at a high international level in the respective field.*

The PI demonstrates impressive leadership abilities and skills. He/she has a lot of experience in the management of (international) research projects and grants and very good experience in participation in international collaborative projects.

The PI and senior research staff are very well involved in supervising PhD students and postdoctoral research which will guarantee the sustainability of the research team.

The size and composition of the research team are justified and optimal to achieve the research objectives.

The role of team members is very clear and optimally explained.

Very good

The PI is an internationally recognized researcher whose previous research results have been well acknowledged over the last 10 years (*The publications and/or monographs are at a very good international level. Articles are published in respectable peer-reviewed journals or proceedings indexed in the leading databases of the field. The impact of the PI is at a very good international level in the respective field*).

The PI demonstrates very good leadership abilities and skills. He/she has considerable experience in the management of (international) research projects and grants and in participation in international collaborative projects.

The PI and senior research staff have good experience in supervising PhD students and postdoctoral research which will guarantee the sustainability of the research team.

The size and composition of the research team are justified and clear in order to achieve the research objectives.

The role of team members is clear and very well outlined.

Good

The PI is a researcher whose previous research results have been well acknowledged over the last 10 years (*The publications and/or monographs are at a good international level. Articles are published in peer-reviewed journals or international proceedings. The impact of the PI is at a good international level in the respective field)*.

The PI shows leadership abilities and skills. He/she has some experience in the management of (international) research projects and grants and in participation in international collaborative projects.

The PI has experience in supervising PhD students and postdoctoral research but the sustainability of research may be questionable due to limited involvement of young researchers and/or PhD students.

The size and composition of the research team are justified and clear in order to achieve the research objectives. The role and tasks of the team members needs some clarification.

Satisfactory

The PI is a researcher whose previous research results have been somewhat acknowledged over the last 10 years (Articles are published in journals and proceedings which are not indexed in the leading databases in the field. No monographs have been published. The impact of the PI does not reach the international level).

The PI has limited experience in the management of (international) research projects and grants and/or in the participation in international collaborative projects.

The PI has some experience in supervising PhD students.

The size and composition of the research team are on satisfactory level but in the long run the research team may not be sustainable.

The role and responsibilities of the team members remain somewhat vague.

<u>Unsatisfactory</u>

The PI is not an internationally recognized researcher though her/his previous research results have been somewhat acknowledged over the last 10 years (the research and publishing record are weak. The impact of the PI is poor).

The PI has little or almost no experience in the management of (international) research projects and grants and has not participated in any international collaborative projects.

The PI has no or very limited experience in supervising PhD students.

The size and composition of the research team are at an inadequate level for achieving the proposed research objectives.

The role and responsibilities of the team members remain vague. In the long run, the research team seems not to be sustainable.

4. The potential impact of the project (inter- and multidisciplinary issues, collaboration, supervision of young researchers, societal challenges, etc)

Guiding questions

To what extent the research addresses important social/sector issues, nationally and/or internationally?

To what extent the project promotes inter- and/or multidisciplinary research?

To what extent does the research project support young researcher training?

Other comments on Section 4.

Rating scale for Section 4

Outstanding

The expected impact of the proposed research on the specific research field, society, and/or culture is high.

The expected results substantially increase the knowledge base in the specific research field.

The possible future developments of the proposed research are very clearly outlined, and if appropriate, are of high relevance for societal problems and culture.

The project clearly promotes inter- and/or multidisciplinary research (if appropriate).

The ample and justified involvement of young researchers and PhD students very well supports the sustainability of the research area.

Very good

The expected impact of the proposed research on the specific research field, society, and culture is high. The expected results definitely increase the knowledge base in the specific research field.

The possible future developments of the proposed research are clearly outlined, and if appropriate, are of relevance for societal problems and culture.

The project promotes inter- and/or multidisciplinary research (If appropriate).

The involvement of young researchers and PhD students well supports the promotion of the research area.

Good

The expected impact of the proposed research on the specific research field, society, and culture is h not very clearly outlined.

The expected results somewhat increase the knowledge base in the specific research field.

The possible future developments of the proposed research are not very clearly indicated, but if appropriate, are of some relevance for societal problems and culture.

If appropriate, the project promotes inter- and/or multidisciplinary research to some extent.

The involvement of young researchers and PhD students is modest for promoting the research area.

Satisfactory

The expected impact of the proposed research on the specific research field, society, and culture, as well as possible future developments are vaguely outlined. The expected results somewhat ensure national and international competitiveness and high quality of the research.

The project orientation is too narrow and overlooks the possibilities of inter- or multidisciplinary research. The involvement of young researchers and PhD students is very modest.

Unsatisfactory

The expected impact of the proposed research on the specific research field, society, and culture are vaguely outlined. The outlined possible future developments of the research are questionable. The expected results do not ensure national and international acceptability, competitiveness or high quality of the research.

The project would have benefitted from inter- or multidisciplinary research which is missing.

The involvement of young researchers and PhD students is too modest for supporting the promotion of the research area.

5. Importance for Estonian science, society and economy

NB! Only the expert panel and the Evaluation Committee will evaluate this section.

Guiding questions

Does the project have potential impact on the development of Estonian science, society, and economy?

In writing your assessment of this section please pay attention to the following issues: how relevant are the project results/knowledge obtained for Estonian science, (specific) research area, economy and sustainability of Estonian science, culture and environment. What is the added value (in addition to the personal development and experience of the Pl/research team)? The relevance may entail contributing to a new, fast developing research area, further elaborating a research method or developing a novel method, widening the existing or adding new competences at the host institution (Estonian R&D institution), extending the International and/or interdisciplinary cooperation to increase the competitiveness of Estonian science, etc.

Other comments on Section 5.

Rating scale for Section 5:

Outstanding

The project has a significant impact on the development of Estonian science, society, and economy.

Very good

The project has a considerable impact on the development of the Estonian science, society, and economy.

Good

The project has a potential impact on the development of Estonian science, society, and economy.

Satisfactory

The project has a modest impact on the development of Estonian science, society, and economy.

Unsatisfactory

The project has no impact on the development of Estonian science, society, and economy.

6. Ethical issues and data management

Explanation

The applicants are required to consider the ethical risk of any procedure within a research project which involves human participation or personal data, incl. a description of how the principles of voluntary participation, informed consent, confidentiality and anonymity of subjects will be followed, and a statement on how such data will be stored and protected. Use of research methods that require review or approval from a human ethics or a bioethics research committee, should be also clearly indicated in the application (the need for such approvals will be checked by the expert panel). The applicants are also expected to consider issues related to secure storage of data either generated or used during the project period and making them available based on the open data principle (if not restricted due to data protection requirements).

6.1. Ethical issues

Guiding question

Are there any ethical issues involved and, if so, have they been adequately considered and addressed?

Please choose one of the following answers:

Not applicable

Appropriate - ethical issues are adequately addressed (please comment)

Not appropriate - crucial ethical issues are not adequately addressed (comment is obligatory).

6.2. Data management issues

Are the data management issues, incl. data protection worked out in a sufficient way (if appropriate)?

Please choose one of the following answers:

Not applicable

Appropriate – data management issues are adequately addressed (please comment)

Not appropriate - crucial data management issues, incl. data protection are not adequately addressed (comment is obligatory).

NB! Breaching ethical principles and insufficient considerations of data management issues may exclude the applicant from receiving the grant. This decision will be made by the Evaluation Committee taking into account the opinions of the reviewers.

Other comments on Section 6.

7. Justification of the applied grant type

NB! This section will be evaluated only by the Evaluation Committee, and not scored.

The Evaluation Committee has to comment on the following:

- 7.1. Is the applied grant type clearly and well justified?
- 7.2. Is the the applied grant type appropriate for the planned research?

Other comments on Section 7.

Rating scale for Section 7:

Apprporiate

The grant type (amount and volume of direct costs) is well thought out, clear and justified. The roles and tasks of other grant staff are clearly specified. The grant type applied for is appropriate for implementing the project and achieving the set objectives.

Not appropriate

The grant type (amount and volume of direct costs) is unclear and/or insufficietly justified. The roles and tasks of other grant staff are not clearly specified or unclear from the point of view of project implementation. The grant type applied for is not appropriate for implementing the project and achieving the set objectives.

Overall assessment and the final score of the application

NB! This section will be filled in by the expert panel and the Evaluation Committee.

The final score of the application is a sum of justified assessment scores for sections 1-5 by the Evaluation Committee..

Main arguments underlying the scores as well as main strengths and weaknesses have to be pointed out here.

Overall comments on the application.