Peer review guidelines
Peer Review Guidelines
PEARL

Table of Contents
1. Background Information ........................................................................................................... 2
2. Peer Review Process .................................................................................................................. 2 - 6
  2.1. Strategic Merit Assessment Stage ......................................................................................... 3
  2.2. Candidate and Research Programme Assessment Stage ......................................................... 3
  2.3. Evaluation of open PEARL positions ..................................................................................... 3
  2.4. Role of Persons Involved in the Peer Review Process .......................................................... 3
  2.5. Steps and Time Schedule for the PEARL Calls ................................................................. 5
  2.6. The SMA criteria .................................................................................................................. 5
  2.7. The scientific panel criteria .................................................................................................. 6
3. Guidelines for Writing Evaluations ............................................................................................. 7
4. Guidelines for Reviewers ............................................................................................................. 7
  4.1. Review Form ......................................................................................................................... 8
5. Confidentiality and Conflict of Interest ...................................................................................... 9 - 10
  5.1. Confidentiality ..................................................................................................................... 9
  5.2. Conflict of Interest ............................................................................................................... 9

Further call information, forms and guidelines are available on the FNR webpage:
www.fnr.lu/Pearl.
1. Background Information

Since its launch in 2008, the PEARL programme is one of the FNR’s key instruments in its strategy to strengthen Luxembourg’s research environment by investing in human resources, institutional development and capacity building in priority research domains. This objective has been reiterated in the FNR’s Performance Contract 2018-2021 (PC) with the Luxembourg government (see FNR website http://www.fnr.lu/en/About-Us/Mission), where the FNR intends to invest further in the period 2018-2021 through PEARL. The FNR foresees to grant 1 to 2 PEARL awards (3-4 M€ each) per year.

In line with the strategy outlined in our PC, the FNR continues to offer PEARL funding to enable the recruitment of renowned scientists to Luxembourg. PEARL candidates should be leaders in their field, innovative, creative and possess an outstanding track record that will strengthen Luxembourg’s position in the international world of research and development.

Within the frame of the PC, increased emphasis has been put on the assessment of PEARL proposals in light of their contribution to the development of a given priority area for Luxembourg (the strategic merit assessment). The FNR will gauge to what extent the candidate and their project will contribute to strengthen the research priority areas of Luxembourg. Proposals will need to show how the candidate’s research activities will integrate into the institution’s strategy and create synergistic effects with the existing research fabric with the intention to multiply the scientific impact and attain high international recognition in the field. The FNR will look at the past and present achievements within the particular research field in Luxembourg as well as the past and future investments of the institution within this domain.

**The PEARL objective:**

Attraction of leading researchers that will develop a research programme in areas of strategic importance to Luxembourg with the potential to generate long term impact.

2. Peer Review Process

The PEARL programme foresees one annual deadline for pre-proposals, with a later deadline for full proposals that are successful in the initial stage. PEARL proposals will undergo two evaluation stages following the formal submission of the proposal by the Host Institution and the candidate:

- Review of pre-proposal and strategic fit of programme, through written reviews and Strategic Merit Assessment (SMA) by the PEARL standing panel
- Written assessment of Candidate and Research Programme accompanied by an interview panel meeting (with the Expert Panel)
- Funding recommendation by the Expert Panel
2.1. Strategic Merit Assessment Stage

All written proposals that are submitted to the FNR by the annual deadline will be reviewed by international experts (a written evaluation of the proposal; see SMA criteria below). In addition, institutional representatives will be able to present the proposals in the Strategic Merit Assessment meeting, before the SMA panel whose role it is to shortlist proposals for the next evaluation stage.

2.2. Candidate and Research Programme Assessment Stage

Proposals retained for the second evaluation stage will be assessed in writing (see Panel criteria) by international experts. The reviews will be provided to the candidate prior to the interview session. The candidate, along with representatives of the research institution will need to present the proposal and address the remarks of the reviews in front of the expert panel during an interview session.

Based on this session, the interview panel will give a funding recommendation for the project to the FNR. The final funding decision will be taken within the decision bodies of the FNR. The FNR can usually fund up to 1-2 PEARL positions per year.

2.3. Evaluation of open PEARL positions

When a proposal without a candidate is retained by the PEARL panel at the SMA stage, the institutions and FNR will organise a joint recruitment process (including an evaluation and recruitment panel). The candidates will be evaluated on their merits and on how their research programme ties in with the strategy and research objectives set out in the initial proposal (incl. strategy and competency areas of the university or research institute). It is essential therefore that the candidates present a rationale for how their research programme ties in with the proposal and its objectives in their application.

The FNR requires that the position will be openly advertised.

2.4. Role of Persons Involved in the Peer Review Process

2.4.1. Role of Reviewers

Proposals will be evaluated in writing by independent and senior experts in the relevant field with regard to the criteria set out below.

Reviewers are international, independent experts in a specific subject who are invited to evaluate a research proposal closely related to their field of expertise and to submit a written review.

They are requested to:
- Carefully read the ‘Programme Description’ and the present ‘Peer Review Guidelines’.
- Sign in advance a ‘Review Participation Form,’ which includes a ‘Confidentiality Agreement’.
- Thoroughly read the assigned ‘Pre-Proposal’ or ‘Full Proposal’.
- Complete and submit a ‘Review Form’ providing comments and scoring the proposal.
When evaluating research proposals, reviewers should comment briefly on each selection criterion to the best of his/her abilities, his/her professional skills, knowledge and ethics.

For further information, please refer to chapter 4 (Guidelines for Reviewers).

2.4.2. Role of Panel Members

The PEARL standing panel is composed of members of the FNR’s Scientific Council and other evaluation panels of the FNR. Its role is to evaluate whether the proposals conform to the objectives and aims of the programme during the SMA stage.

Following the written SMA evaluation of the proposal and the hearing of the institutional representatives, the standing PEARL panel will have the role to select a limited number of candidates who will submit a full proposal and present their projects in individual interview sessions.

The Expert Panel is composed of experts from the particular field of research (usually the experts who have provided written reviews of the proposal) as well as members of the standing panel. The overall role of the Expert Panel is to analyse the reviews and interview outcomes to assess if the candidate and proposal fulfils the PEARL selection criteria and whether or not the proposal should be funded by the FNR.

To achieve this, each panel member is supposed to:

- Carefully read the ‘Programme Description’ and the present ‘Peer Review Guidelines’.
- Thoroughly read the ‘Full Proposals’ and related reviews assigned to them.
- Evaluate each proposal and reviews (resolving any possible conflicting reviews).

During the ‘Interview Panel Meeting’, the panel members will listen to the candidate presentation, address questions to the candidate regarding the project and his/her objectives, and discuss the reviews according to the ‘PEARL Selection Criteria’ to the best of their knowledge and ethics. At the end of the meeting, the panel will be asked to comment the overall quality of the proposal and the evaluation procedure, and to give recommendations for future calls.

2.4.3. Role of the FNR Programme Manager

The ‘FNR Programme Manager’ will support all involved experts during the evaluation process. He/she, in cooperation with the panel chair, will take care that the FNR rules and procedures are respected. If necessary, the ‘FNR Programme Manager’ will provide the panel with background information to the Luxembourg research landscape and the national context in general.

The FNR staff does not provide any information regarding the status of the applications to the applicants while the evaluation procedure is in progress and until the funding decision has been taken by the ‘FNR Board of Administration’.
2.5. Steps and Time Schedule for the PEARL Calls

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15th of October 2019 14:00 (CET)</td>
<td>Deadline for the submission of pre-proposals</td>
</tr>
<tr>
<td>October - December</td>
<td>Evaluation (strategic merit assessment) by PEARL standing panel and shortlisting of proposals</td>
</tr>
<tr>
<td>14th of February 2020 14:00 (CET)</td>
<td>Deadline for the submission of full proposals</td>
</tr>
<tr>
<td>February - April</td>
<td>Evaluation of proposal by at least 3 international experts in the field and written feedback to applicants</td>
</tr>
<tr>
<td>April - May</td>
<td>Interview Panel Meeting, where representatives of the research institution and the candidate will present the proposal to the expert panel and respond to the reviewer's comments and panel's questions</td>
</tr>
<tr>
<td>June - July</td>
<td>The final funding decision by the Board of Administration of the FNR and communication to applicants</td>
</tr>
</tbody>
</table>

Note that all dates and timeframes are indicative and may be subject to change.

2.6. Pre proposal evaluation criteria

2.6.1. Appropriateness of the candidate

The reviewers and standing panel should assess the appropriateness of the candidates profile in light of the expectations of the PEARL programme. The overarching goal is to determine if the candidate is the best choice for the given project.

To decide this, they will look at the leadership of the candidate in the field as demonstrated by his/her scientific track record (publications, awards, patents, etc.) and past achievements beyond scientific output (contribution to the development of institutions, IP generation, collaboration with private sector etc.).

2.6.2. Institutional and national strategic development

The reviewers and standing panel will assess the strategic alignment of the proposal in light of international trends, potential for critical mass and international visibility, and possible return on investment of the proposed programme.

To do this, the international experts serving as reviewers will review the proposal based upon their knowledge of the current state of the field, as well as any trends and possibilities for the proposed programme to be at the forefront of the field.

The standing panel, having knowledge on the Luxembourgish landscape, will assess how the proposal fits into the national R&D strategy and strategic orientation of the host institute. Their assessment will be based on the past investments and achievements of the institute as well as its future ambition for the research domain.

Both the reviewers and standing panel will look at the anticipated added value of the candidate and his/her research programme to the vision of the institution and the
development of national research and innovation environment. In particular, the potential to reach critical mass and high international visibility will be assessed with a specific eye on the potential for synergies with existing Luxembourg-based research groups.

Finally, an important aspect to be assessed is the possible scientific output and advancement of current knowledge in the field, the advancement of people (e.g. through teaching, training, mentoring etc) and the appropriateness of the dissemination and exploitation strategies of the research findings (e.g. IP protection strategies, public engagement, collaboration with actors from the society and the economy etc).

### 2.6.3. Institutional commitment and long-term sustainability

The SMA panel will assess the commitment of the host institution to the PEARL programme in terms of financial contributions and other forms of support (e.g. infrastructure) demonstrating that the PEARL-position is truly part of a long-term investment.

In the absence of a candidate the FNR will assess the potential to attract leading research to the position looking at the means put at disposal by the institution, the benefits associated to the position, recruitment strategy etc.

#### 2.6.1. Open Questions

The international experts serving as reviewers should highlight any gaps in the proposal, aspects that are not well described or otherwise need more clarification. These questions will be taken up in the strategic merit assessment, to be answered by the representatives of the host institution.

### 2.7. Full proposal evaluation criteria

#### 2.7.1. Excellence of the candidate

The experts will look in detail at the candidate’s ability to generate excellent scientific output and advance the current knowledge in the field. The candidate’s experience in managing and leading scientific teams (e.g. through teaching, training, mentoring etc.) and their ability to exploit research findings (e.g. IP protection strategies, public engagement, collaboration with actors from the society and the economy etc.) will also be evaluated, to determine if a strong and sustainable research area will be built up through the PEARL funding. The experts will also assess the appropriateness of the applicant with respect to the proposed research programme, to determine if this is the best person that can be chosen.

#### 2.7.2. Scientific quality and innovativeness of the proposed research programme

The invited experts will assess the research programme presented within the proposal in light of its innovativeness and the international competitiveness. The evaluation of the programme’s ability and ambition to advance the field is also important. The experts will assess if the scientific approach is sufficiently focused, appropriate and the objectives are achievable.
2.7.3. Expected impact of the project

Experts will look at the potential to establish a productive and sustainable research group which will make significant contributions to the field as well as the research landscape in Luxembourg. The PEARL funding should be used to develop critical mass through attracting and advancing researchers within the area, to produce high quality scientific output, and to potentially create and exploit intellectual properties within the programme.

The experts will equally look at the group’s strategies for the above aims (e.g. publication aims, IP protection strategies, public engagement, collaboration with actors from the society and the economy, etc.).

3. Guidelines for Writing Evaluations

The following style recommendations¹ should guide reviewers and panel members during the composition of their evaluations:

- The assessment should be more than just a rating and needs good justification for the arguments.
- 2-3 pages of substantive comments may be sufficient – not too long but enough to be able to back up the assessment and funding recommendation.
- The overall rating should match the comments – otherwise the domain panel and the applicants might not have confidence in the assessment.
- Generalists in the field should be able to understand the comments - care has to be taken not to adopt a bias in favour of work in the expert’s own specialism i.e. “x is a vitally important area etc.”
- References to other key papers in the field are useful.
- Set out the strengths and weaknesses of each criterion and of the whole proposal in a structured way.
- Feedback should be balanced with constructive criticism and supported with examples.
- Where appropriate, suggest alternative approaches to improve the proposal.
- Particular concerns should be highlighted about the assessment or aspects of the proposal.

Please note that the anonymised reviews will be sent to the applicant and host institutions.

4. Guidelines for Reviewers

This chapter describes the tasks of the reviewers, defined as international, independent experts in a specific subject.

You have been invited by the ‘Programme Manager’ to evaluate a research proposal because it is closely related to your field of expertise. Each pre proposal will usually be submitted to 2-3 reviewers, while each full proposal will usually be submitted to 4-5 reviewers.

Before you may access the ‘Full Proposal’, you have to sign the ‘Review Participation Form’ which includes a ‘Confidentiality Agreement’.

Please read the following documents that will be sent to you:
- The ‘Programme Description’ explains the objectives of the programme.
- The present ‘Peer Review Guidelines’.
- The assigned ‘Full Proposal’.

4.1. Review Form

You are invited to complete and submit the ‘PEARL SMA Form’ or ‘PEARL Review Form’ sent to you by email. Please provide a written evaluation and a rating for each criterion as requested in the form.

The ‘Review Form’ contains 3 parts:
- Part 1: Ethical considerations
- Part 2: Evaluation of the proposal per criterion
- Part 3: Overall assessment

The applicants and host institution will receive an anonymised copy of your evaluation for their records, and for preparing the interview panel (in the case of the full proposal).

4.1.1. Ethical considerations

Please comment if the proposal gives rise to any ethical issues.

4.1.2. Evaluation of the proposal

Please carefully read the descriptions of the criteria in the scientific panel criteria chapter and comment concisely on each selection criterion to the best of your abilities, professional skills, knowledge and ethics.

Please also consult the style recommendations in chapter 3: Guidelines for Writing Evaluations, as it is very important that the review be based on coherent comments or arguments that will help the panel to reach a decision and subsequently formulate a meaningful ‘Panel Conclusion’. It is therefore essential that the FNR receives sufficiently detailed and coherent assessments for each selection criterion.

4.1.3. Overall assessment

Please provide an overall assessment of the elements evaluated in relation to the application. Indicate the most important strengths and weaknesses of the candidate and the project proposal and provide any necessary supplementary comments.
5. Confidentiality and Conflict of Interest

5.1. Confidentiality

All research plans and evaluation statements are confidential documents. Application documents should therefore be handled with care and treated as confidential before, during and after the evaluation process.

Reviewers and panel members must not disclose any information concerning application documents or evaluations to outsiders, nor should they use confidential information to their own or any other party’s benefit or disadvantage.

Reviewers and panel members must not communicate with applicants. Reviewers and panel members’ advice to the FNR on any proposal may not be communicated by them to the applicants or to any other person. Panel members are not allowed to disclose the names of other experts participating in the evaluation. Where proposals are posted or made available electronically to reviewers, who then work from their own or other suitable premises, the reviewer will be held personally responsible for maintaining the confidentiality of any documents or electronic files sent and returning, erasing or destroying all confidential documents or files upon completing the evaluation as instructed. Reviewers and Panel members may not show the contents of proposals or information on applicants to third parties (e.g. colleagues, students, etc.).

If reviewers are contacted by anyone who has questions about application documents or evaluation statements, please direct them to the FNR contact person.

After the funding decision has been made by the decision bodies of the FNR, the review statements are sent to applicants without naming the reviewer.

5.2. Conflict of Interest

All persons involved in the review process are required to declare any personal interests according to the following criteria.

5.2.1. Circumstances in which a conflict of interest may exist

A disqualifying conflict of interest exists if a person:

- was involved in the preparation of the proposal
- has had close collaboration with the applicant(s) (e.g. has co-authored and published an article with the applicant during the past three years)
- stands to benefit directly should the proposal be accepted (e.g. is involved in the publication or exploitation of the potential results of the proposal)
- has a close family relationship with any person representing an applicant organisation in the proposal. This includes:
  - a spouse, child, grandchild, sibling, parent, grandparent
  - a person otherwise especially close (e.g. fiancé/e or a close friend), and/or their spouses
  - a sibling of a parent or his/her spouse, a child of a sibling, previous spouse
  - a child, grandchild, sibling, parent or grandparent of a spouse and/or their spouses, a child of a sibling of a spouse
– or a half-relative comparable to the above mentioned
• is a director, trustee or partner of an applicant organisation
• is employed by one of the applicant organisations in a proposal
• is in any other situation that compromises his or her ability to evaluate the proposal impartially

A potential conflict of interest may exist, even in cases not covered by the clear disqualifying conflicts indicated above, if a person:
• was employed by one of the applicant organisations in a proposal within the previous three years
• is involved in a contract or research collaboration with an applicant organisation, or has been so in the previous three years
• is in any other situation that could cast doubt on his or her ability to evaluate the proposal impartially, or that could reasonably appear to do so in the eyes of an external third party

Persons involved in the peer review process must also declare a conflict of interest at any time during the process.

5.2.2. Inability to perform obligations and termination

If for some reason the reviewers and panel members are not able to fulfil their obligations for a given work, the FNR should be informed immediately. The work cannot be delegated to another person without the prior written agreement of the FNR.