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 ....................................................................................................... 6
   2.7. The scientific panel criteria ....................................................................................... 7
3. Guidelines for Writing Evaluations ..................................................................................... 7
   4.1. Review Form ........................................................................................................... Error! Bookmark not defined.
5. Confidentiality and Conflict of Interest .......................................................................... 8 - 10
   5.1. Confidentiality ......................................................................................................... Error! Bookmark not defined.
   5.2. Conflict of Interest ................................................................................................. Error! Bookmark not defined.

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 Multiannual Contract 2018-2021 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 our strategy, 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 our strategy, 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

Important indication to reviewers: As a signatory of the “Declaration on Research Assessment (DORA)”, the FNR evaluates quality and impact of research independently of journal-based metrics.
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.

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

All persons involved in the Peer Review Process are required to read and comply with the FNR Ethics Charter and Code of Conduct for Research Assessment, which lay down essential rules and expectations regarding confidentiality, impartiality and the proper management of conflicts of interest.

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,’ the FNR Ethics Charter and Code of Conduct for Research Assessment, 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 a core group of up to three individuals that participate in all PEARL panels. It is chaired by a member of FNR’s Scientific Council. The FNR Secretary-general is an ex officio member of the PEARL standing panel, without voting rights. The role of the PEARL standing panel is to ensure consistency of practice and standards between PEARL evaluation panels. It also has the role 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 are invited to 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 the 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 to make a recommendation on 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,’ the FNR Ethics Charter and Code of Conduct for Research Assessment, 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.

The Panel Chair guides the discussion and interviews, ensures a high-quality discussion and appropriate behaviour and keeps the meeting to time. He/she ensures a clear outcome from the meeting.
2.4.1. Role of the FNR Secretary General

The FNR Secretary-general is an *ex officio* member of PEARL panels, without voting rights. He/she provides context on applications, ensures quality and consistency of committee practice, and supervises adherence to FNR rules, policies and procedures. He provides guidance or clarifications on FNR policies, positions and strategy. He manages conflicts of interest. He/she may delegate part of these responsibilities to the another FNR staff member.

2.4.2. 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. He/she takes notes during the panel meetings and drafts the initial version of the report.

### 2.5. Steps and Time Schedule for the PEARL Calls

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 13th 2020 14:00 (CET)</td>
<td>Deadline for the submission of pre-proposals</td>
</tr>
<tr>
<td>October – December 2020</td>
<td>Evaluation (strategic merit assessment) by PEARL standing panel and shortlisting of proposals</td>
</tr>
<tr>
<td>February 12th 2021 14:00 (CET)</td>
<td>Deadline for the submission of full proposals</td>
</tr>
<tr>
<td>February – April 2021</td>
<td>Evaluation of proposal by at least 3 international experts in the field and written feedback to applicants</td>
</tr>
<tr>
<td>May – June 2021</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 2021</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 the particular research question(s) that are addressed, whether these research questions are relevant and whether the proposed approaches are innovative (in the context of international competition) and feasible. 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

As a signatory of the DORA Declaration, the FNR expects panel members and reviewers to evaluate quality and impact independently of journal-based metrics and to give value to all types of research outputs.
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.
- 3-4 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.
- 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 speciality
- References to other key papers in the field are useful.
- Clearly 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.

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

4. Confidentiality and Conflict of Interest

All persons involved in the Peer Review Process are required to read and comply with the FNR Ethics Charter and Code of Conduct for Research Assessment (link), which lay down essential rules and expectations regarding confidentiality, impartiality and the proper management of conflicts of interest.

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.