PEARL
EXCELLENCE PROGRAMME
FOR RESEARCH IN
LUXEMBOURG

FONDS NATIONAL DE LA RECHERCHE

Programme description

www.fnr.lu/pearl
PEARL

Strategic Research Programme to Attract Leading Researchers to Luxembourg

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Version Call 2021, 08/07/2020
1. General Principles of the PEARL Programme

1.1. Objectives

The PEARL programme aims to support the Luxembourg research institutions to expand their competences in research areas defined in the National Research Priorities by attracting outstanding established researchers with to Luxembourg to strengthen Luxembourg’s position in the international world of research and development.

In line with the “FNR Strategy and Action Plan 2018-2021”, the PEARL instrument aims to support the FNR’s drive towards excellence in research through the following six dimensions:

1. SCIENTIFIC QUALITY – by making significant and international visible scientific advances (in terms of understanding, method, theory and application), across and within disciplines.
2. PUBLIC OUTREACH – by helping the development of a research culture through public engagement actions, improving scientific literacy, raising awareness of the added value of research in tackling societal challenges and stimulating a critical mind-set within society.
3. TEACHING AND TRAINING – by making innovative contributions in graduate and postgraduate teaching and by educating a critical mindset and training highly skilled people with career opportunities within and outside academia.
4. SOCIETAL IMPACT – by informing policy debate and decisions by research evidence and close interaction with societal stakeholders and by providing solutions to the needs of society.
5. ECONOMIC IMPACT – by strengthening industry/private sector through collaborative efforts between the public research organisations and industry; by enabling the transfer of research findings and know-how to the private sector and by stimulating entrepreneurial activities within the public research institutions.
6. SHAPING THE RESEARCH SYSTEM – through innovating in research management, and by creating an institutional environment that nurtures talents, stimulates outstanding research and fosters entrepreneurial spirit.

The FNR continues to offer PEARL funding to enable the recruitment of renowned scientists to Luxembourg. PEARL candidates should be leaders in their field with an outstanding track record, and able to build and sustain an innovative, creative and effective research group.

PEARL proposals should contribute to the development of Luxembourg’s defined National Research Priorities, and should also align with the institutional strategy. In addition, PEARL-led groups should create synergistic effects with the existing Luxembourg research ecosystem with the intention to multiply the scientific impact and attain high international recognition in the field. To determine the strategic fit of a PEARL proposal, 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.

1.2. Main Characteristics of the PEARL Programme

The PEARL programme offers five year grants of 3M€, respectively 4M€ for proposals that have substantial requirements regarding experimentation and instrumentation. In addition to the FNR grant, a financial contribution by the host institution is expected, as PEARL projects should be understood as a joint undertaking with the view to reach the institutional and national objective of achieving international visibility in the chosen research field.

The PEARL programme is not formally restricted to specific research fields, but should align with the country’s National Research Priorities as well as the strategic priorities of the host institution. Thus, the proposal should demonstrate that it will contribute to either creating a new research area in one of these priorities or will strengthen an already-existing focus research area of the host institution.

PEARL provides financial support for all aspects that are required for the establishment of a research programme including funding for personnel, major research equipment, infrastructure or data collection, and anything else required. The PEARL grantee will have the necessary freedom to make use of the PEARL budget during the course of the grant in order to successfully implement his/her research programme and build up his/her group.

A Scientific Advisory Board (SAB) will accompany the PEARL fellow during their project. Their role is to help steer the programme and report on the progress of the PEARL to the FNR. The SAB will meet yearly and support the ongoing development of the PEARL, serving as a sounding board for the PEARL fellow as well as informing the FNR of any possible issues that need to be addressed.

In addition, the FNR will assist in the relocation of the PEARL fellow to Luxembourg to ensure a smooth transition into the new environment.

1.3. Open recruitment via PEARL (open PEARL)

The PEARL programme also allows for the submission of a proposal where the candidate is still to be recruited. Through this format, institutions can advertise an attractive position and are thus able to recruit the best candidates to Luxembourg, with the backing of the FNR. Institutions wishing to fill a position which they deem of particular importance to their strategic development may apply for such a PEARL position. These proposals will be evaluated on their strategic merit together with the ‘regular’ PEARL candidates in the SMA stage (see below). In case such a
position is retained, a joint recruitment panel will be formed between the institution and the FNR and the PEARL position will be openly advertised.

1.4. National Research Priorities

On December 20th, 2019, the Luxembourg Government has adopted the “National Research and Innovation Strategy for Luxembourg” with the National Research Priorities (NRP).

The “National Research and Innovation Strategy” defines four interdisciplinary research priority areas, which have been identified as being of particular importance for the societal, ecological and economic development of the country:

- Industrial and Service Transformation
- Personalised Healthcare
- Sustainable and Responsible Development
- 21st Century Education

In the National Research Priorities, these broadly defined interdisciplinary research priority areas have been further refined into subdisciplines and research themes.

Please refer to the document National Research Priorities for a detailed description.

Proposals submitted under the PEARL programme need to align with the National Research Priorities.

1.5. Eligible Host Institutions and Candidates

The following organisations established within Luxembourg are eligible for financial support from the FNR under the PEARL programme:

1. Public institutions performing research in Luxembourg;

2. Non-profit associations and foundations performing research in Luxembourg and that have obtained a special authorization from the Ministry for Higher Education and Research.

For more information on eligibility on institutions, please consult the information on the FNR website http://www.fnr.lu/en/about-us/beneficiaries.

The PEARL funding programme is directed at public research institutions in Luxembourg in order to facilitate attracting outstanding research professionals not yet established in Luxembourg. The candidate must not have his or her main research base in Luxembourg at the time of submission of the pre-proposal.
1.6. Working Conditions and Research Culture

The FNR strives to support a positive research culture in Luxembourg, in order to ensure that all actors involved in research are driven and motivated to contribute to high-quality research. In the implementation of the research activities and the development of research groups, adequate attention needs to be paid to working conditions, transparency of recruitment processes and career development. In this matter, the European Charter for Researchers and the Code of Conduct for the recruitment of Researchers offer a reference framework.

In order to foster a positive research culture, leading PIs are encouraged to give particular emphasis to diversity and inclusion aspects.

PIs should be aware of the effects and dangers of unconscious bias and must strive to ensure that diversity and inclusion are fostered and respected in all aspects of their activities, especially with regards to recruitment.

2. Schedule for the 2020 PEARL Calls

The PEARL call 2020 will follow the following schedule:

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Event Description</th>
</tr>
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<tbody>
<tr>
<td>October 13th 2020</td>
<td></td>
</tr>
<tr>
<td>14:00 (CET)</td>
<td>Deadline for the submission of pre-proposals</td>
</tr>
<tr>
<td>October – December</td>
<td>Strategic Merit Assessment by PEARL standing panel and shortlisting of proposals</td>
</tr>
<tr>
<td>February 12th 2021</td>
<td>Deadline for the submission of full proposals</td>
</tr>
<tr>
<td>14:00 (CET)</td>
<td>Evaluation of proposal by at least 4 international experts in the field and written feedback to applicants</td>
</tr>
<tr>
<td>February – April</td>
<td>Interview sessions with expert panel to obtain funding recommendation</td>
</tr>
<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>May – June 2021</td>
<td></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>
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</table>

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

Candidates are responsible to check early in advance whether the Luxembourg host institution for their PEARL grant has an internal deadline prior to the FNR deadline.
3. Submission and selection process

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

- Strategic Merit Assessment (SMA), to be evaluated by the PEARL standing panel, based upon the pre-proposal
- Interview stage, with the assessment of the candidate and research programme, to be evaluated by scientific panel, based upon the full proposal

Based upon the evaluations of the candidates, the funding recommendation by the PEARL standing panel will be finalized by the board of the FNR.

3.1. Strategic Merit Assessment Stage

All pre-proposals that are submitted to the FNR by the annual deadline will be reviewed by international experts to assess the project in terms of the applicant's fit, international relevance, and long-term development of the field. In addition, institutional representatives will be able to present the proposals and their fit to the respective institutional strategy in the SMA panel, whose role it is to shortlist proposals for the next evaluation stage based on long-term strategic development of the research field in Luxembourg. More details are in “The SMA criteria” section (2.5) as well as the “Guidelines for Applicants”.

3.2. Candidate and Research Programme Assessment Stage

Projects retained for the second evaluation stage will be requested to write a full proposal, which will be assessed in writing by international experts for scientific quality, innovation and impact potential, as well as candidate excellence. The reviews will be provided to the candidate prior to the interview session. At the interview session, both the candidate and representatives of the host institution will present the proposal and address the remarks of the reviews in front of the expert panel. The panel will then give a final evaluation and recommendation to the FNR as to whether the PEARL project should be funded. More details are in “The Scientific Panel criteria” section below as well as the “Guidelines for Applicants” document.

The awarding of a PEARL grant is contingent on the acceptance of and continuation in an appropriate permanent position at the host institution where the PEARL fellow will be joining. The terms and conditions of the employment are directly negotiated between the applicant and the host institutions.
The final decision for the FNR's funding of the PEARL project will be taken by the decision bodies of the FNR. The FNR will usually fund up to 1-2 PEARL positions per annum.

### 3.3. 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 to search for appropriate candidates to fill the position. 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 therefore essential 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.
3.4. The SMA criteria

Appropriateness of the candidate

The SMA panel will assess the appropriateness of the candidates profile in light of the expectation of the PEARL programme. They will look at the leadership of the candidate in the field as demonstrated by his/her scientific track record and past achievements along the six dimensions of excellence stated in section 1.1.

Value of strategic development

The SMA panel will assess the strategic alignment of the proposal with the national R&D strategy and strategic orientation of the 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. Furthermore, the 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.

In addition, the SMA panel will look at 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 valorization strategies, public engagement, collaboration with actors from the society and the economy etc.).

Institutional commitment (Attractiveness of position to potential candidates)

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 (Personnel, infrastructure, or other additions to the project) demonstrating that the PEARL-position is truly part of a long-term investment in a strategic area of development for the host institution.

In the absence of a candidate, the FNR will assess the potential to attract leading researchers to the position looking at the means put at disposal by the institution, the benefits associated to the position, recruitment strategy, and other relevant aspects.
3.5. The scientific panel criteria

Excellence of the researcher

The experts will look in detail at the candidates ability to generate high impact scientific output and advance current knowledge in the field, his/her track record in terms of the advancement of people (e.g. through teaching, training, mentoring etc.) and his/her ability to exploit research findings (e.g. IP valorization strategies, public engagement, collaboration with actors from the society and the economy etc.). The experts will also assess the appropriateness of the applicant’s track record with respect to the proposed research programme.

Scientific quality and innovativeness

The research programme presented within the proposal will be assessed in light of its relevance, innovativeness, and the international competitiveness. The experts will assess if the research questions are clearly formulated and relevant, whether the scientific approach is innovative, whether the proposed programme is sufficiently focused, and if the objectives are achievable. In addition, the research programme will be evaluated based on its likelihood of advancing the international research field.

Expected Impact

Experts will look at the potential to establish a productive and sustainable research group which will make significant contributions to the current knowledge in the field and in the training of the next generation of researches. The experts will equally look at the group’s strategy for the dissemination and exploitation strategies of the research findings (e.g. IP valorization strategies, public engagement, collaboration with actors from the society and the economy etc.). Ultimately the group’s contribution within the institutional setting to reaching critical mass and international visibility in the field will be looked at.
4. Relocation Support

The FNR will provide relocation assistance as well as financial support to PEARL fellows to help in the process of moving to Luxembourg (including obtaining visas, completing work and residence permit procedures, finding accommodation, opening bank accounts, becoming familiar with the tax system and learning about the country). For more information on what is offered, please contact the Programme Manager.

5. Further information

For additional guidance on submitting PEARL proposals, institutions and potential candidates are advised to contact the FNR well before the submission deadline in case they wish to submit a proposal (in particular if they wish to submit an open PEARL position).

For further information please visit the National Research Fund Luxembourg website http://www.fnr.lu/PEARL or contact:

Fonds National de la Recherche  
P.O. Box 1777  
L - 1017 Luxembourg  
Tel: +352 26 19 25 - 1  
Fax: +352 26 19 25 - 35  

Sean Sapcariu – Programme Manager  
Tel: +352 26 19 25-33  
Email: sean.sapcariu@fnr.lu  

Sandra Nittel – Programme Assistant  
Tel: +352 26 19 25-22  
Email: sandra.nittel@fnr.lu