Leibniz Competition:
Strategic Goals, Research Assessment and Monitoring

December 2023
Preliminaries

• This set of slides is aimed at all scientists and science officers in Leibniz institutions. It is intended to provide an initial overview of the internal competition procedures in the Leibniz Association, in terms of their objectives and funding opportunities, but also with a view to creating the greatest possible transparency of the selection procedures themselves and including a cross-year overview.

A PowerPoint version of the slides is available upon request (please contact saw@leibniz-gemeinschaft.de)
Overview

1. The Leibniz Association
2. Leibniz Competition:
   2.1 Objectives/ Evaluation criteria
   2.2 Eligibility and funding
   2.3 Review process/ Assessment
   2.4 Transparency and fairness
3. Additional information
The Leibniz Association at a glance

- Founded in 1995
- An association of 97 independent institutes, including 17 infrastructure facilities and 8 research museums
- Financial volume € 2 billion (2021) by Joint Science Conference
- Around 21,000 employees, including 12,000 scientists
- Evaluation every 7 years
- Strong regional roots in every German federal state
The Leibniz Association covers a broad range of scientific fields

Section A — Humanities and Educational Research
(23 institutions)

Section B — Economics, Social Sciences, Spatial Research
(18 institutions)

Section C — Life Sciences
(24 institutions)

Section D — Mathematics, Natural Sciences and Engineering
(24 institutions)

Section E — Environmental Research
(8 institutions)
The Leibniz Mission
Collaborative research

Scientific excellence and social relevance

• Knowledge-based and applied research
• Interdisciplinary collaborative research
• Close collaboration with universities
• Wide range of research infrastructure facilities, eight research museums
Why a Competition within the Leibniz-Association?

• incentive of internal competition and cooperation
• to achieve the Leibniz Association’s **strategic objectives**
• to stimulate the Leibniz Association’s continued **profile development**
• since 2005 as part of the Pact for Research and Innovation
Funding Programmes within the Leibniz Competition

- Leibniz Junior Research Groups
- Leibniz Programme for Women Professors
- Leibniz Collaborative Excellence
- Leibniz Transfer

- Leibniz ScienceCampi
- Leibniz Research Alliances
Strategic priorities of the four Open Topic Funding Programmes

**Junior Research Groups**
- Promoting young talents
- Attracting the best minds
- Internationalization

**Women Professors**
- Attracting the best minds
- More women in scientific leadership positions
- Internalisation

**Collaborative Excellence**
- Promotion of collaboration within Leibniz and between Leibniz institutes and their networks
- Optional: high risk - high gain

**Transfer**
- Strengthening the transfer into politics, society and the economy
Leibniz Junior Research Groups

Programme document

2.1 Objectives/Evaluation criteria

Objectives

Gain outstanding scientists from Germany and abroad

Promote young scientists

Offer early independence

Evaluation Criteria

The candidate’s…

- Academic performance (publications and funding obtained from third parties)
- Career status and future career prospects
- Scientific independence and integration into the institute’s research landscape
- International research experience

The project’s …

- Academic and methodological quality
- Originality and level of innovation
- Maturity and relevance
Leibniz Programme for Women Professors

**Programme document**

### Objectives

- Promote outstandingly talented women and their innovation potential
- Increase percentage of women in leadership positions
- Strengthen strategic collaboration with universities

### Evaluation Criteria

- The candidate's academic profile and career prospects
- Scientific excellence
- Structural impact
- Status of the joint appointment
Leibniz Collaborative Excellence

Highly innovative research
Strategic collaboration within the Leibniz Association and the greater scientific community
Optional: high risk – high gain
Consolidating already established Leibniz topics as well as development of new fields of research

Evaluation Criteria

- Scientific excellence and innovativeness
- For high risk – high gain: expected scientific breakthrough or fundamentally new perspective
- Quality of the network
- Synergies in the collaboration and added value through networking
- The topic's relevance
- Strategic and structural impact
Leibniz Transfer

Programme document

Objectives
Qualitative and quantitative development of transfer of knowledge and technology

2.1 Objectives/ Evaluation criteria

Evaluation Criteria

- Innovativeness and relevance
- Prospects of success and feasibility
- Target groups and efficacy
- Sustainability
- Assessment of the project leaders
- Added value for the Leibniz Association
2.1 Objectives/ Evaluation criteria

Structural aspects relevant for all Programmes

| Concept for research data management |
| Dissemination of results: Open Access Publications are expected; costs can be reimbursed |
| Equality Standards and Diversity |
| Career Development |
| Good Scientific Practice |

Leibniz Guidelines:
- Handling of Research Data
- Open Access Policy of the Leibniz Association
- Career Development
- Good Scientific Practice
- Equality standards
- Standards for the appointments to academic management positions
Eligibility and funding

- In total **25 million € p.a.** available
- Every Leibniz Institute can submit applications
- 1 or 2 applications per institute as lead applicant (up to **1 million € total**) *
- An application for the Programme for Women Professors can be added twice a year

*A non-lead Leibniz Institute can contribute a share of its own application budget (this is called budget partnership) in the sense of co-financing in order to underline the importance of the cooperation. The lower limit for this is 200,000 EUR. A budget partnership relieves the application budget of the lead institute and enables it to submit further applications. You can find more information about budget partnerships in our FAQs.*
How to apply

- Application rounds start with the submission of an expression of interest (30 September for the first round of the Leibniz Programme for Women Professors, 30 March for all other programmes including the second round of the Leibniz Programme for Women Professors).

- Full applications are submitted by 30 October (first round of the Leibniz Programme for Women Professors) and 30 April (all other programmes including the second round of the Leibniz Programme for Women Professors).

- Applications are submitted via an electronic application system. Access is given to scientific institute directors who can then invite other persons to create their own accounts and edit or submit expressions of interest and full applications.

- The detailed project proposal follows a defined structure and should not exceed a total length of 12 pages (excluding title page and bibliography). Proposal templates are available on our website.
How to apply

- Applications in the Programme Leibniz Collaborative Excellence fall into one of two categories:
  - **high risk – high gain** (the expected breakthrough or fundamentally new perspective have to be presented in the application)
  - Projects where the **innovative character derives mainly from the collaboration**
  - The latter require substantial financial contribution from at least two Leibniz institutes

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**Phase 1: Application**

- **Innovative character derives essentially from:**
  - Particularly innovative collaboration
  - Substantial financial contribution from at least two Leibniz institutes

**Phase 2: Review and evaluation**

- External Reviewers and SAW assess with a particular focus:
  - Synergies and scientific added value resulting from the collaboration

**Phase 3: Decision**

- **Scientific excellence/ Quality of the network and partners/ Strategic impact aspects**
  - Presentation of expected breakthrough (technical innovation or fundamentally new perspective)
  - At least one university or non-university partner

- **Scientific breakthrough expected in the event of success**

- The SAW recommends applications for funding based on a comparative discussion
Research Assessment in the Leibniz-Competition

- Defined programmes, structured proposals, specific evaluation criteria
- Peer review: written assessment by two external experts and two rapporteurs per proposal
- Discussion in panel and plenary sessions of the Senate Competition Committee (SAW)
- Committee Care and Culture: Nominations, briefings, feedback rounds, conversation culture and confidence/trust
The four levels of quality assurance in the review process

Submission of applications

SAW: Senate Competition Committee

Review process
Two external expert opinions are obtained for each application and examined for any conflict of interest. About 70 per cent of the external reviewers work abroad.

Written reporting by SAW
The scientific members of the SAW write comparative reports of the applications and their reviews. It is determined which applicants to the programme Leibniz-Junior Research Groups will be invited for interviews.

Subject-specific SAW panels
Discussion of all proposals in a scientific field (humanities and educational sciences, social sciences, life sciences, natural sciences and engineering) and determination of preliminary evaluations.

SAW selection meeting
Discussion of the applications and determination of funding recommendations. These are presented to the Senate of the Leibniz Association, which decides about them en bloc.

Personal presentation
Selected candidates in the programme Leibniz-Junior Research Groups present to a selection panel of the SAW.
Important procedural features

Personal presentation of selected applicants to Leibniz Junior Research Groups
A one-day selection meeting to assess the prospects of success and leadership potential

Additional deadline in the Leibniz Women Professors Program
Since 2020, applications can be submitted twice a year

Focus on qualitative assessment:
Narrative CVs
Highlight 5-10 most important publications
Who assesses?: Members of Senate Competition Committee (SAW)

- The head of the SAW is Matthias Beller, Vice President of the Leibniz Association, deputy is Barbara Sturm, Vice President of the Leibniz Association.

- The members of the SAW are: external scientists, members of the Leibniz Senate and section spokespersons, representatives of the DFG, the GWK office, the German Council of Science and Humanities, and the federal and state governments.

- Since 2020, there are twenty-two full members as external scientists, who are elected by the senate based on suggestions of the five sections and the members of the executive board.
Election of External Scientists to the SAW

- September: Definition of profiles for upcoming elections by the SAW
- March: Resolution of the call for nominations by the executive board
- June: Deadline for the submission of suggestions by executive board members and sections
- July - September: Preliminary ranking by SAW chairperson and president, feedback with section spokespersons
- October: Resolution of a ranked list of nominees by the executive board, submission to the Senate
- November: Election by the Senate for a four year membership

2.3 Review process/Assessment
### Denomination of SAW positions for External Scientists

<table>
<thead>
<tr>
<th>Modern and Contemporary History</th>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>History and Culture of Eastern Europe</td>
<td>Human Geography and Regional Sciences</td>
</tr>
<tr>
<td>Psychology</td>
<td>Economics/ Microeconomics</td>
</tr>
<tr>
<td>Linguistics and Digital Humanities</td>
<td>Economics/ Macroeconomics</td>
</tr>
<tr>
<td>Educational Sciences and Educational Research</td>
<td></td>
</tr>
<tr>
<td>Infectiology/ Immunology</td>
<td>New Materials/ Chemistry</td>
</tr>
<tr>
<td>Epidemiology, Prevention and Public Health</td>
<td>Physics, experimental</td>
</tr>
<tr>
<td>Zoology, Evolutionary Biology and Neuroscience</td>
<td>Physics, theoretical</td>
</tr>
<tr>
<td>Microbiology/ Biochemistry/ Drugs</td>
<td>Materials Science and Engineering</td>
</tr>
<tr>
<td>Molecular Cell Biology</td>
<td></td>
</tr>
<tr>
<td>Geo-, Environmental and Agricultural Sciences</td>
<td>Computer Science and Research Data Management</td>
</tr>
<tr>
<td>Environment and global Ecological Systems</td>
<td>- Humanities and educational sciences</td>
</tr>
<tr>
<td>Biodiversity Research</td>
<td>- Social Sciences</td>
</tr>
<tr>
<td></td>
<td>- Life Sciences</td>
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<tr>
<td></td>
<td>- Natural and Engineering Sciences</td>
</tr>
<tr>
<td></td>
<td>- Environmental Sciences</td>
</tr>
</tbody>
</table>
2.3 Review process/Assessment

Who assesses?: External scientists in the Senate Competition Committee (SAW)

- Humanities and Educational Research
- Social Sciences
- Life Sciences
- Natural and Engineering Sciences
- Environmental Sciences

* Membership of Prof. Stefan Trautmann will be starting 1 April 2024
Transparency and fairness of the procedure

2.4 Transparency and fairness

**Fundamentals of the process**
- Programme documents including evaluation criteria
- **GO-SAW** (rules of procedure)
- Annually updated selection procedure paper

**Communication**
- Annual report available online
- Overview of funded projects on the website
- Feedback round with section spokespeople and external scientists in the SAW

**Feedback to applicants and institutions**
- Anonymized reviews
- SAW statements to the respective application
- Brief description of the selection procedure

**Monitoring**
- Distribution of budget among funding programmes
- Chances of success according to e.g.:
  - **Scientific field**
  - **Gender**
  - **Institution size**
Success rates according to scientific fields

Success rates vary from year to year depending on the quality of proposals

Success Rates are depicted as percentage of the overall requested budget per Scientific Field. Values are means, error bars are standard deviations.
Success rates according to programmes

Success rates vary from year to year depending on the quality of proposals. There is an open competition between programmes.

Success Rates are depicted as percentage of the overall requested budget per Programme. Values are means, error bars are standard deviations.
Budget allocation between programmes

Most of the budget is allocated to the programme Leibniz Collaborative Excellence, reflecting the high number of proposals.

Budgets are depicted as million €.
Interdisciplinary proposals

Around a third of all proposals is interdisciplinary

- The SAW is particularly well-suited for assessing interdisciplinary applications due to its structure: As all scientific fields of the Leibniz Association are represented in the SAW, the proposals can be assessed from two perspectives that are subject-related.

- The funding rates of these applications are comparable to the rates for non-interdisciplinary proposals (almost 30% funding rate, data from Leibniz Competition 2021-2024)

- Interdisciplinary applications are submitted in all programmes and from all sections

Definition

A project in the Leibniz Competition is classified as interdisciplinary if:

a. at least two scientific fields are selected by the applicants

OR

b. two SAW members with different expertise can be assigned in a subject-related manner

2.4 Transparency and fairness
Collaborations between Leibniz institutes

Collaborations in 54 active projects within Leibniz Collaborative Excellence (46) and Leibniz Transfer (8)

- Most of the projects involving collaboration of Leibniz institutes are organized in tandems or groups of three.
- There are collaborations within one section or across different sections.

### Active projects as per 30 September 2023

<table>
<thead>
<tr>
<th>Tandems</th>
<th>Groups of three</th>
<th>Groups of four</th>
<th>Larger groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSMZ - IPK</td>
<td>ZFL - ZZF - IDS</td>
<td>DSMZ - IPK</td>
<td>IPN - LEIZA - DM - DBM - DSM - GNM - DIE - IWM - LIB - IUF - FZB</td>
</tr>
<tr>
<td>LIB - SGN</td>
<td>ZMO - ZZF - IEG</td>
<td>DRFZ - FZB</td>
<td>IPN - LEIZA - DM - DBM - DSM - GNM - DIE - IWM - LIB - IUF - FZB</td>
</tr>
<tr>
<td>FLI - DFF</td>
<td>ZMO - ZZF - IRS</td>
<td>DRFZ - FZB</td>
<td>IPN - LEIZA - DM - DBM - DSM - GNM - DIE - IWM - LIB - IUF - FZB</td>
</tr>
</tbody>
</table>

Most of the projects involving collaboration of Leibniz institutes are organized in tandems or groups of three.

There are collaborations within one section or across different sections.
## Participation and success of women scientists

### Leibniz Competition

<table>
<thead>
<tr>
<th>Percentage of Women</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>as Applicants in the Leibniz Competition</td>
<td>36 %</td>
<td>35 %</td>
<td>26 %</td>
<td>40 %</td>
<td>45 %</td>
<td>56 %</td>
</tr>
<tr>
<td>without Women Professors</td>
<td>30 %</td>
<td>31 %</td>
<td>24 %</td>
<td>33 %</td>
<td>41 %</td>
<td>50 %</td>
</tr>
<tr>
<td>in Scientific Leadership Positions*</td>
<td>31 %</td>
<td>31 %</td>
<td>32 %</td>
<td>32 %</td>
<td>32 %</td>
<td>33 %</td>
</tr>
<tr>
<td>as project leaders in the Leibniz Competition</td>
<td>50 %</td>
<td>39 %</td>
<td>26 %</td>
<td>50 %</td>
<td>34 %</td>
<td>48 %</td>
</tr>
<tr>
<td>without Women Professors</td>
<td>44 %</td>
<td>27 %</td>
<td>26 %</td>
<td>30 %</td>
<td>24 %</td>
<td>38 %</td>
</tr>
</tbody>
</table>

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*Percentage of women in Scientific Leadership Positions in the Leibniz Association: aggregated data from all management levels, data was obtained for the “Bericht zum Stand der Umsetzung des Pakts für Forschung und Innovation 2022”.*
## Participation of Leibniz institutes

<table>
<thead>
<tr>
<th>Leibniz Competition</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Leibniz institutes*</td>
<td>94</td>
<td>96</td>
<td>97</td>
<td>97</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Participation rate (%) as lead institutes</td>
<td>90</td>
<td>80</td>
<td>82</td>
<td>87</td>
<td>83</td>
<td>78</td>
</tr>
<tr>
<td>Participation rate (%) incl. non-lead institutes</td>
<td>94</td>
<td>85</td>
<td>90</td>
<td>89</td>
<td>84</td>
<td>90</td>
</tr>
</tbody>
</table>

*Note that the German Institute for Economic Research (DIW) and the Socio-Economic Panel (SOEP) are counted as two Institutions in the Leibniz Competition.

Participation rate incl. non-lead institutes also defines an institute as participating if it is an institutional collaboration partner in at least one application.
3. Additional information

Additional information and contact

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sollberger(at)leibniz-gemeinschaft.de | Leibniz Transfer | Leibniz ScienceCampi | Leibniz Research Alliances

Website | Programme Documents | Application Procedure | Templates | Selection Process

FAQ