

JAPAN-GERMANY
JOINT CALL FOR PROPOSALS ON
“Quantum Technologies”

This joint call is launched jointly by the Japan Science and Technology Agency (JST) and Deutsche Forschungsgemeinschaft (DFG, German Research Foundation). Proposals submitted to JST and DFG will be evaluated jointly and adopted projects will be respectively supported by both agencies. Japan based research teams will be supported by JST; German based research teams will be supported by DFG.

Opening date:

16 April 2024

Closing Date:

26 June 2024 (17:00 JST / 17:00 CEST)

The proposals have to be submitted to the JST until 17:00 JST. The proposals and accompanying documents have to be submitted to DFG before 17:00 CEST on the same day.

1. Introduction

JST and DFG are working together to foster cooperative efforts in scientific research between Japan and Germany and is launching a joint call as part of this initiative. The call for proposals is for internationally collaborative research projects in Quantum Technologies, an emerging priority area to both Japan and Germany.

The submitted proposals will be evaluated by experts regarding the funding criteria to achieve the program’s purposes described below.

2. Aim of Joint Call and Scope

Aim

ASPIRE (Adopting Sustainable Partnerships for Innovative Research Ecosystem) is an initiative to develop and strengthen international joint research in scientific and technological fields of strategic priority with like-

mindful countries. Through this program in cooperation with partner national and regional funding agencies from these countries, JST aims to support international joint research and foster early career researchers (ECRs) who may be the future leaders in their fields by connecting top researchers and promoting international talent mobility and circulation.

Based on the implementation principles of the ASPIRE program in Japan and DFG's program, this joint call, aims to support internationally competitive collaborative research projects between Japan and Germany in Quantum Technologies.

Call Scope

Research related to quantum computing and quantum technology in general, including quantum materials with innovative functionality, which contributes to the realization of a productivity revolution.

Examples: Quantum technology contributing to ultra-high-speed parallel information processing, quantum communication, higher-performing measurement technology, higher-performance materials, etc.

3. Indicative Timetable

Publication of the Call for Proposals	16 April 2024
Application Deadline	26 June 2024
Document Review	June to July 2024
Assessment Panel meeting	August to September 2024
Interviews for Japan based PIs who pass the document review*	middle September 2024
Determination of Proposals recommended for funding	late September 2024
Funding Decision and Notification of results	November to December 2024
Start of Research Support	February 2025

Note: the above details are subject to change.

*Japan based PIs will be notified by E-mail at least two weeks before the interview date. Interview dates will be considered the availability of the PIs

and several potential dates and times will be offered.

4. Support Scale

The funding amount from JST to the Japanese applicants will be up to JPY 380,000,000 for 5 years per project, plus 30% of indirect costs.

The funding amount from DFG to the German applicants will be up to EUR 1,650,000 for 5 years per project, plus 22% of indirect costs.

A maximum of 2 projects will be funded within the framework of this call for proposals.

5. Eligible beneficiaries and composition of the consortia

I. Eligibility

- Requirements for Japan-side research team: Researchers or research teams that are conducting research at a research institution (universities, independent administrative institutions, public experimental research institutions, public-interest corporations, and companies) in Japan are eligible to apply. Researchers and research institutions applying must register with the “Cross-Ministerial Research and Development Management System (e-Rad)” prior to application.
<https://www.e-rad.go.jp/en/index.html>
- If private companies participate on the Japanese side and apply for funding by JST, all project partners need to sign a cooperation agreement in line with the DFG’s “Model of a Cooperation Agreement between Academic Research Institutions and Commercial Enterprises” and the applicants need to submit it together with the application. The agreement needs to be reviewed and approved by the DFG before the funding can start. The DFG’s provides Model Agreement:
http://www.dfg.de/formulare/41_026/
- Requirements for Germany-side research team: The eligibility criteria of the DFG’s Individual Research Grants apply, i.e. qualified researchers (as a rule, those holding a doctorate) from all disciplines working at German research institutions can apply. Researchers working at

institutions which serve purely commercial purposes or those who are not permitted to publish findings in a generally accessible form are not eligible to apply.

<https://www.dfg.de/en/research-funding/funding-opportunities/programmes/individual/research-grants>

II. Consortium composition

Each project proposal must have at least two eligible research teams: one team (at least) in Japan and one team (at least) in Germany.

Each team in Japan and Germany should consist of members with roles listed below and be led by a Principal Investigator (PI). Each team should also include one or several researchers who will travel from Japan to Germany and from Germany to Japan respectively to conduct research (outgoing researchers).

Japanese team should include assigned roles from the following list:

- **Principal Investigator (PI)**
The PI is a researcher who will be directly supported by JST and is the representative of the research team(s) in Japan. They are responsible for directing and overseeing the whole project. The PI must be affiliated with a research institution in Japan.
- **Co-Principal Investigator (Co-PI) (if needed)**
The Co-PI is a researcher who will be directly supported by JST and collaborates with the PI in conducting the research project. The Co-PI must be affiliated with a research institution in Japan.
- **Research participants**
Research participants are researchers, technicians, research assistants, students and others who are part of the research project under the direction of the PI or Co-PIs but are not directly supported by JST.
- **Outgoing researcher(s)**
In principle, the researcher(s) going abroad should fall under either (i) or (ii) to be eligible. The outgoing researcher(s) will conduct research

activities in Germany for about one year. There is no limit to the number of researchers who may go abroad, and they can be the PI, Co-PI or research participants of the project.

(i) Students enrolled in an advanced degree course (i.e., master's or doctoral course) *

(ii) Researchers who have obtained their final degree less than 15 years ago and are conducting research activities at universities, public research institutions, etc.

*Students who are enrolled in a master's course, doctoral course or transitioned to a postdoctoral researcher position upon completion of their doctoral course are required to obtain prior approval from the project PI or Co-PI and the research institution to which they belong to in order to use ASPIRE funds.

Roles within the German teams:

Only one individual should be listed as PI of the German Side. Other applicants should be assigned the role of Co-PIs. Both, PI and Co-PIs should be given the role applicant (Antragsteller*in) in the DFG's electronic submission portal (elan).

6. Proposal Submission

The Japan and German team will need to submit their applications by parallel submission, using the designated application form (Japan-Germany_quantum_technologies_form.docx) to draft a joint proposal and submit it to the application websites of their respective countries. Each research team in each country shall be led by a PI who also must submit all required consortium application documents on behalf of the consortium, to JST or DFG.

Project proposals are to be submitted through the following websites:

- For the PI's from the Japan side: [Cross-Ministerial Research and Development Management System \(e-Rad\)](#)

Call Title (Japanese):

2024 年度 日独共同公募 : 量子技術

Call Title (English): Japan-Germany joint call in the field of "Quantum Technologies"

- For the PI's from German side: <https://elan.dfg.de/>
Call Title: Japan-JST-DFG-ASPIRE 2024

The applicants are to follow the proposal structure provided in the application form.

Note for Applicants from the Japan Side

- I. Please follow the Application Guidelines 「公募要領別紙」 in addition to this call text when applying. The Japan-side PI must also complete a designated online course on research ethics. (See Section 4.1 in 「公募要領別紙」 for more info).
- II. Multiple applications to the JST ASPIRE 2024 Call for Proposals are NOT allowed.
- III. As ASPIRE aims to promote international networking and fostering ECRs, applicants to this call may apply to other research grant programs with content that overlaps with their ASPIRE research project.

Note for Applicants from the German Side

- I. It is necessary to have an elan-account to submit a proposal. Confirmation of registration is usually provided within three working days. The registration has to be confirmed before submitting.
- II. Regardless of the number of applicants, the proposal has to be submitted to the DFG only once. The PI enters the relevant data for all applicants requesting funding from the DFG.
- III. First steps on elan: Log-In > Proposal Submission > New Project / Draft proposal > Individual Grants Programme > “Proposal for a Research Grant” > Start online form.
- IV. Select the Call “Japan-JST-DFG-ASPIRE 2024”
- V. Apply for a 3-year project (the last 2 years can be granted as an extension after the first 2 years of the project).
- VI. Submit the following documents:
 - a) The proposal sent to the JST
 - b) A document in which you address the points 4.1.1. to 4.1.5. and 5 of the DFG proposal guidelines for Research Grants (www.dfg.de/formulare/54_01/). Under point 5, describe the detailed budget request for the first three years of the project of the German

applicants, a justification of the request and quotes if necessary.

7. Assessment

Project proposals received by JST and DFG will be subject to an assessment process if they meet the eligibility requirements of both agencies and are within the scope of this funding opportunity.

Each project proposal will be peer reviewed by invited reviewers who are experts in the particular fields represented by the proposal against the criteria specified for this funding opportunity.

The evaluation criteria are as follows:

Criteria	Description of the criteria
I. Relevance and quality of the research content and plan	<ul style="list-style-type: none"> • Does the proposal adequately correspond to the purpose of the call? • Are the proposed research activities of a high standard in the research field/area concerned? • Are synergy effects expected from conducting international joint research as a part of this project?
II. Concreteness and feasibility of plans for promoting early career researchers and researcher mobility	<ul style="list-style-type: none"> • Are appropriate goals set for fostering early career researchers through international mobility activities? • Are there plans to involve a sufficient number of early career researchers? • Is an effective developing plan for the early career researchers considered and is the plan suitable for fostering the next generation of top researchers? • Are the roles and length of stay for the outgoing researcher(s) clearly described and appropriate? Is the exchange plan feasible?
III. Concreteness and relevance of plans for building and expanding international networks	<ul style="list-style-type: none"> • Explaining the research strengths, the unique added value opportunities, complementary expertise or synergy in research efforts that bringing together the Japanese and Germany teams, provides to advance the research. • Describing an appropriate balance of opportunities for

	<p>the exchange of people (for example researchers and technicians), including the purpose of the exchanges and their potential to enhance the professional development of those involved.</p> <ul style="list-style-type: none"> • Has an appropriate, concrete, and feasible plan for how the Japanese and Germany teams and their research environments will realize the creation of a world-class international researcher network in the relevant research community.
IV. Relevance and diversity of the research system	<ul style="list-style-type: none"> • Does the research team have a well-balanced composition of expertise, given the objectives of the proposal?
V. Qualification of the PIs of the research team in Japan and Germany	<ul style="list-style-type: none"> • Does the PI have sufficient qualifications, research environment, and resources (funds, human and material resources, etc.) to carry out the research activities in accordance with the proposal and purpose of this call?

The reviewers will provide evaluation comments and scores for each project proposal, and all the proposals will be subject to an assessment panel to make a funding recommendation.

The assessment panel will be comprised of experts Japan and Germany jointly appointed by JST and DFG. The panel will assess the project proposals and collaboratively generate a ranked list of recommendations that will be provided to both funding agencies.

JST and DFG strive to fund the first two projects on the list.

8. Project Implementation and Reporting

I. Expenditure/costs eligible for funding

Japanese team :

(1) Direct Costs

Direct costs encompass expenditures that are directly essential for the completion of research, as outlined below:

a. Travel Expenses

Travel and accommodation expenses for researchers going abroad

and for research participants described in the research plan.

b. Personnel costs

Personnel expenses for research participants described in the research plan (PI and Co-PI personnel expenses and teaching buyout policy may apply). Personnel expenses for administrative staff necessary to coordinate the researchers' travel and their personnel-related procedures.

c. Facilities, Equipment and Consumables

Purchasing research equipment, books, reagents, materials and consumables, etc.

Costs of research equipment, materials, consumables, etc. related to research and expenses necessary for daily life during staying at the partner country.

d. Miscellaneous

Necessary costs for the research and development (cost for organizing and hosting events for research dissemination, equipment leasing costs, transportation costs for equipment used for the research project).

(2) Indirect Costs

Indirect costs refer to funds which go directly to the research institution for administrative overhead costs.

(3) Points of Caution

Participants are to allocate around 70% of the total direct cost to activities that further ASPIRE's objectives of (1) building and expanding international research networks that foster cutting-edge research and development (2) laying the foundation for long-lasting relationships and continued involvement in the international research community by promoting international talent mobility and circulation and providing research opportunities to early career researchers.

The above-mentioned research expenses reserved for promoting international networking and fostering future generations of researchers may cover the following expenses related but not limited to:

- holding workshops to develop and strengthen relationships among

researchers

- travel expenses for the researchers going abroad to the partner country and the expenses incurred during the stay
- personnel expenses for administrative staff that coordinate the travel of outgoing researchers and their personnel-related procedures.

Please note that employment, procurement of equipment, etc. purely for the purpose of conducting research does not count as a part of the 70%.

German team :

Eligible cost categories (related to specific Programme Modules) are specified in DFG forms 52.01 – 52.07 and 52.14) available on the DFG website. The standard module that fits most needs is the Basic Module (www.dfg.de/formulare/52_01/). Here, support for travel and stays abroad can be requested.

For project-scientific workshops, please choose the Module Project-Specific Workshops (www.dfg.de/formulare/52_06/).

It is expected that proposals dedicate a significant fraction of the requested funds to facilitating exchange between the partners from Germany and Japan.

The DFG grants 22% of the direct costs as overhead (Programmpauschale).
http://www.dfg.de/foerderung/programme/einzelfoerderung/sachbeihilfe/formulare_merkblaetter/index.jsp

II. Reporting

(1) Annual Research Report

Japanese and German PI is required to submit an annual research report promptly according to the form provided by JST. In addition, the Japanese research institution which have concluded a contract research agreement with JST is required to submit an accounting report of the support expenses to JST promptly after the end of each fiscal year.

(2) Mid-Term Evaluation

A mid-term evaluation of the proposal will be conducted halfway through the research period (around the third year) and a post-

evaluation will be conducted following the conclusion of the research. The outcome of the mid-term evaluation will be reflected in subsequent research plans and resource allocation (including increases/decreases in research funding and other adjustments). If deemed to be necessary based on the state of the research project, support for the project may be terminated early.

(3) Final Research Report

The Japanese PI is required to submit a Final Research Report to JST and DFG promptly after the end of the research period for the joint research. JST will contact its PI about the form, submission deadline, etc. at an appropriate time.

The PI and Co-PIs from Germany have to each provide a final report to the DFG. This report has to follow the guidelines of the Individual Grants Programme (details are included in the decision letters of the DFG).

9. Contacts

(1) JST contacts

Department of International Affairs

E-mail : aspire-de@jst.go.jp

(2) DFG contacts

For questions related to the preparation of proposals:

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