

Swiss Quantum Call 2024

Call for proposals

This call is targeted to Swiss quantum researchers^{1,2} with the aim to establish, foster and extend new collaborations between different research groups and research institutions in Switzerland and abroad, as well as project partners from the industry. The participation of independent early career scientists is encouraged.

The Swiss Quantum Call 2024 is based on strategic considerations of the Swiss Quantum Commission (SQC). A total budget of CHF 16 Mio³ is available to fund projects (consisting of CHF 10 Mio from the transitional measures for Horizon Europe and CHF 6 Mio from the Swiss Quantum Initiative SQI) provided by State Secretariat for Education, Research and Innovation (SERI).

This call aims at strengthening the Swiss Quantum research, particularly in view of the current non-association of Switzerland to Horizon Europe.

1. Purpose and scope

¹ The purpose of this call is to enable qualified researchers to perform research with self-chosen goals independently and under their own responsibility on the following topics:

- (i) Quantum communication (including but not limited to quantum key distribution, quantum repeaters and communication between quantum computers)
- (ii) Quantum computation (including but not limited to quantum processors and architecture, new qubits, error correction, algorithms)
- (iii) Quantum simulation (including but not limited to quantum simulators incl. atomic and solid-state systems and synthetic quantum materials exhibiting entanglement, algorithms)
- (iv) Quantum sensing and quantum metrology (including but not limited to sensing platforms and approaches, algorithms, entanglement-enhanced sensing, quantum metrology standards, clocks)

Furthermore, proposals in the following fields are welcome if they are key to the physical systems or engineering technologies within one of the above topics (i) to (iv):

- Materials for quantum devices
- Quantum control hardware
- Quantum theory
- Computer sciences.

² Applicants can apply for coverage of staff salaries, research costs and scientific equipment as well as for the funding of scientific cooperation, networking and communication; however, they may not apply for their own salaries.

¹ Researchers affiliated at a higher education research center in Switzerland (according to RIPA article 4, letter c)

² <https://www.fedlex.admin.ch/eli/cc/2013/786/en>

³ Including 15% overhead and SNSF costs.

³ All proposals eligible for the Swiss Quantum Call 2024 will be evaluated together with the same evaluation criteria. After the evaluation, the Swiss Quantum Call Steering Committee will recommend which projects may be funded in the frame of the “transitional measure” or by the SQI.

2. Duration of funding, minimum grants

¹ The grants are awarded for a minimum of one year and a maximum of four years. The SNSF does not consider proposals for shorter or longer periods of research.

² Over the entire duration of the grant, an amount not exceeding CHF 250,000 on average may be requested per annum and per applicant. In each case, the maximum grant may not exceed an average of CHF 1 million per annum and project. In justified cases, the SNSF may award a higher grant on request. A higher amount than the average may be requested for any individual year, provided the total grant over the entire duration does not exceed the permitted maximum. The annual instalments awarded may not be exceeded.

³ The minimum amount that may be requested in research Proposals is CHF 100,000. The SNSF does not consider Proposals for lower amounts.

3. Personal and formal requirements for the submission of proposals

3.1. Personal requirements, general

¹ Natural persons are eligible to submit proposals if they meet the general eligibility requirements for the submission of Proposals pursuant to Article 10 of the [Funding Regulations of the SNSF](#)⁴. The requirements set out in Article 13 of the [Funding Regulations of the SNSF](#)⁴ with regard to the proposed research must also be met.

² Applicants with a doctorate must have obtained the latter four years before the submission date of the application. Applicants without a doctorate must generally have completed three years of research work as their main source of income since obtaining their higher education degree. Such research work will be regarded as equivalent to a doctorate.

³ Researchers who assume an independent research post less than four years after obtaining the doctorate may submit Swiss Quantum Call 2024 grant Proposals as soon as they assume the said position.

⁴ Applicants must be in a position to carry out research projects under their own responsibility and to lead project staff both scientifically and as personnel.

⁵ Applicants must make a substantial contribution to the proposed research and their work must not be directed by instructions from third parties.

3.2. Other personal requirements

¹ Applicants must be able to show that

- (i) they are conducting their research activities along with any scientific teaching activities to an extent equivalent to at least 50% FTE. Researchers devoting less than 50% of their time to scientific activities are eligible if their scientific research and teaching activities are usually carried out in the context of another professional activity;

⁴ https://www.snf.ch/SiteCollectionDocuments/allg_reglement_16_e.pdf

- (ii) they are employed at least for the duration of the project at a research institution eligible for research funding from the SNSF or have been given assurance of such employment in writing;
- (iii) the necessary research infrastructure is at their disposal.

3.3. Two or more applicants and project partners

¹ Proposals for Swiss Quantum Call 2024 grants are submitted by the corresponding applicant. This person is engaging in correspondence with the SNSF.

² Two or more applicants are eligible if they are needed to achieve the aims set for the planned project.

³ If there are three or more applicants, then one of them may be based abroad if his/her expertise is essential for the project.

⁴ Each applicant must meet the eligibility requirements for the submission of Proposals pursuant to this call document as well as the [Funding Regulations of the SNSF](#)⁴, and each is personally responsible for the project.

⁵ Project partners are researchers or industrial partners who contribute to a research project through cooperation without being responsible for the project. They must be designated as such in the application. Within the scope of their contributions such as analyses etc., project partners benefit from the grant. However, they do not count as (remunerated) employees of the project and are not among those responsible for the project as a whole. They may not refer to the support received from the SNSF as a grant they have acquired themselves.

⁶ The relationship between the applicants and, after approval of the grant, between the grantees is governed by the [Funding Regulations of the SNSF](#)⁴.

3.4. Formal requirements

¹ Swiss Quantum Call 2024 proposals must be submitted electronically to the SNSF.

² The submission date is 1 February 2024.

³ In all other respects, any further formal requirements for the submission of Proposals apply, in particular the [Funding Regulations of the SNSF](#)⁴ and its [Implementation Regulations](#)⁵.

4. Proposals and eligible costs

4.1. Proposals

¹ Swiss Quantum Call 2024 grant proposals must be submitted in accordance with the requirements issued by the SNSF for such grants and must contain all the necessary data and documents.

² The applicants must describe the proposed research project in the research plan.

³ Proposals that are evaluated in the Swiss Quantum Call 2024 may not be submitted in parallel to any other SNSF funding instrument.

⁴ A Swiss Quantum Call 2024 grant is not counted as a regular project funding grant in respect to Article 13.1 of the Regulations on Project funding.

⁵ <https://www.snf.ch/media/en/B0SWnPsrDCRTaiCx/snsf-general-implementation-regulations-for-the-funding-regulations-e.pdf>

⁵ All research projects that overlap in time must have a clear thematic distinction from each other and all applicants must prove that he or she can make a substantial personal contribution to all the projects. Articles 13.2, 13.3 and 13.4 of the Regulations on Project funding apply.

4.2. Eligible research costs

¹ Swiss Quantum Call 2024 grants may be used to cover the following costs:

- (i) the salaries of scientific and technical staff in research projects within the scope of the salary ranges and rates prescribed by the SNSF;
- (ii) scientific equipment and equipment-related services (all expenses linked to the purchase, production, adjustment, and installation of the equipment, but no operation, maintenance and repair costs) up to CHF 300,000 per grant that are necessary to pursue the funded research, if the institution confirms that the maintenance and operation of the acquisition is guaranteed;
- (iii) material costs that are directly related to the research work, namely expendable items, field expenses, travel expenses, third-party charges, cost of computing time and data as well as of providing open access to research data;
- (iv) direct costs incurring through the use of research infrastructure linked to the research work;
- (v) costs for the organisation of conferences and workshops in connection with the funded research;
- (vi) costs for national and international cooperation and networking activities carried out in connection with the funded research;
- (vii) additional costs for the coordination of the research project for Proposals with three or more applicants;
- (viii) for applicants from abroad, the rates of the respective country apply, whereby the maximum rates of the SNSF apply as an upper limit.

² Researchers from institutions that are not employees of research centres (according to [RIPA](#)² article 4 letter c) or companies may not be applicants on a Swiss Quantum Call 2024 grant application. They can contribute as project partners (as specified in chapter 3.3.5) or subcontractors (as specified in Article 2.10 of the [Implementation Regulations](#)⁵). The cost of services provided by project partners and subcontractors cannot exceed a maximum of 20% of the grant.

³ The required funding must be applied for in the proposal. A justification for the requested funding is required.

5. Evaluation process, assessment criteria and grants

5.1. Consideration of proposals

¹ Only proposals that meet the formal and personal requirements according to chapter 3 above are considered by the SNSF and evaluated by the Swiss Quantum Call 2024 Evaluation Panel.

² Proposals are not considered if their objectives manifestly do not match the purpose and scope of the Swiss Quantum Call 2024 as explained in chapter 1 of this document, if the proposals manifestly do not fulfil one of the evaluation criteria listed in chapter 5.2, or if they only request ineligible costs.

³ The Swiss Quantum Call Steering Committee assigns the proposals to one of the two categories depending on the corresponding applicant:

- (i) Proposals from early career researchers with several years of research experience after PhD (or equivalent according to article 3.1.2) during which they have contributed to

impactful research in their field and are now ready to lead an independent research project with their own line of research and direct a team of researchers.

- (ii) Proposals from established researchers who have already led their own independent research projects where they have led internationally recognized contributions to their research area.

5.2. Evaluation

¹ The Swiss Quantum Call 2024 grant proposals are evaluated by a panel of experts (Swiss Quantum Call 2024 Evaluation Panel).

² The Swiss Quantum Call 2024 grant proposals are internationally peer-reviewed.

³ The relevant criteria for the award of Swiss Quantum Call 2024 grants are the scientific quality of the research projects and the scientific qualifications of the applicant(s).

⁴ Scientific evaluation is conducted in accordance with the criteria set out in Article 24 paragraph 2 of the Funding Regulations:

- a) scientific quality of the proposed research project: scientific relevance, topicality and originality, suitable methods, and feasibility;
- b) scientific qualifications of the researchers: scientific track record and ability to carry out the research project.

⁵ For proposals in use-inspired basic research, the project's broader impact is considered in the evaluation as an element of its scientific quality (in accordance with paragraph 4 letter a).

⁶ In the case of collaborative projects (with two or more applicants), the aspect of how cooperation is conceived and organised with a view to achieving the joint research goals is also evaluated (according to article 15.4 of the [Regulations on Project funding](#)⁶).

5.3. Decisions

¹ The Swiss Quantum Call Steering Committee recommends on the financing or rejection of the Swiss Quantum Call 2024 proposals towards the Presiding Board of the SNSF. These recommendations are based on the evaluation results of the Swiss Quantum Call 2024 Evaluation Panel.

² The Swiss Quantum Call Steering Committee ensures that proposals from both categories (early career and established researchers, see art. 5.1.3) have balanced chances of success. The allocation of grants within the two groups is based on the specific criteria of scientific evaluation, i.e. the scientific quality of the research projects and the qualifications of the applicant(s) (article 5.2.4).

³ The Swiss Quantum Call Steering Committee decides whether a successful project is recommended for funding in the frame of the “transitional measure” or by the SQI. This decision will be based on a statement submitted by the applicants regarding the relation of the proposed research proposal with past, ongoing or future Horizon Europe Quantum Technologies Flagship grants. This statement will not be part of the scientific evaluation and have no effect on the success chances of the proposal. It will solely serve the SNSF Quantum Call Steering Committee to select proposals to be funded with the funding from the “transitional measure”.

⁴ The Presiding Board of the SNSF endorses the recommendation of the SNSF Quantum Call Steering Committee.

⁶ <https://www.snf.ch/media/en/FuUlveEikmunxb4X/projektfoerderungsreglement-e.pdf>

⁵ The Presiding Board of the SNSF takes the final funding decisions for proposals funded in the frame of the SQI.

⁶ For the successful projects in the frame of the “transitional measure”, the SNSF will transfer the recommendations to the SERI who takes the final funding decisions and concludes funding contracts with the corresponding applicants of the successful projects.

6. Conduct of the approved projects

6.1. Projects funded from SQI sources

¹ Successful Swiss Quantum Call 2024 grants funded by the SQI may start at the earliest on 1 August 2024.

² Swiss Quantum Call 2024 grants funded by the SQI are managed according to the applicable rules of the SNSF, in particular according to the [Funding Regulations of the SNSF](#)⁴ and its [Implementation Regulations](#)⁵.

³ Holders of Swiss Quantum Call 2024 grants funded by the SQI are obliged to submit to the SNSF reports in accordance with the requirements stipulated by the SNSF.

⁴ In particular, output data must be provided 18 months after the start of the project at the latest and a final report upon conclusion of a project.

6.2. Projects funded in the frame of the “transitional measures”

¹ Successful Swiss Quantum Call 2024 grants may start at the earliest on 1 August 2024.

² Swiss Quantum Call 2024 grants funded by SERI in the frame of transitional measures are financially managed according to the applicable SERI rules for direct funding of Swiss participations in Horizon Europe projects.

³ Holders of Swiss Quantum Call 2024 grants funded in the frame of transitional measures are obliged to submit, to the SNSF, scientific reports in accordance with the requirements stipulated by the SNSF and, to SERI, financial reports as laid out in their funding contracts with SERI.

7. Organisational provisions

7.1. Swiss Quantum Call Steering Committee

¹ The Swiss Quantum Call Steering Committee oversees the evaluation of the Swiss Quantum Call 2024 proposals. It selects the Swiss Quantum Call 2024 Evaluation Panel members and makes a proposal to the Presiding Board on which proposals will be funded, based on the result of the evaluation procedure described in chapter 5.

² The Swiss Quantum Call Steering Committee consists of national and/or international experts. The number of members of the Swiss Quantum Call Steering Committee is between 3 and 10.

³ The Swiss Quantum Call Steering Committee members are selected by the Presiding Board of the SNSF Research Council. Members of the Swiss Quantum Call Steering Committee are not eligible to submit Proposals.

⁴ The members of the Swiss Quantum Call Steering Committee are remunerated in accordance with the usual SNSF rates.

7.2. Swiss Quantum Call 2024 Evaluation Panel

¹ The Swiss Quantum Call 2024 Evaluation Panel consists of national or international experts from the disciplines concerned. The number of members of the Swiss Quantum Call 2024 Evaluation Panel is between 5 and 20.

² The Swiss Quantum Call 2024 Evaluation Panel members are selected by the Swiss Quantum Call Steering Committee. Members of the Swiss Quantum Call 2024 Evaluation Panel are not eligible to submit Proposals in the Quantum call 2024.

³ The members of the Swiss Quantum Call 2024 Evaluation Panel are remunerated in accordance with the usual SNSF rates.

8. Applicable law

⁴ Unless these Regulations provide otherwise, the regulations of the SNSF, namely the [Funding Regulations of the SNSF](#)⁴ and its [Implementation Regulations](#)⁵ apply.