Swiss National
Science Foundation

SWISS QUANTUM CALL 2024: ONLINE INFORMATION SESSION

29 November 2023

Please note that this presentation is only a summary. In case of doubt, please refer to the relevant regulation published on our website.

Programme

1. **Welcome**
2. **Proposal submission, Evaluation & Decision**
3. **Q&A**

Please ask your question orally, rather than using the Chat.
If there is not enough time for all questions, you may pose your questions towards the end of the even in the chat (together with your e-Mail address)

Welcome

Present today:

SNSF:
Pascal Fischer
Cornelia Sommer
Torsten Lüdge
Dominique Schmocker

SERI:
Martin Kern
Raphael Misteli

Content

Outline of the Call

– Scope of projects, Budget

Applications and applicants:

– Target audience: early career researchers and established researchers

– Project Partners, Subcontractors (Industry) -> No commercial use

Proposal submission: *my*SNF **and** SNF Portal

- Eligible cost categories

- Required documents

Evaluation & Decision:

– Swiss Quantum Call Steering Committee

– Peer-review by external experts

– Swiss Quantum Call 2024 Evaluation Panel

– Conflict of interest handling

– Decision path

Budget Quantum Call 2024 – 2 „funding sources“

Swiss Quantum Initiative:
SNSF takes final decisions and makes legal agreements with the applicants.

"transitional measure for quantum":
SERI takes the final decisions and makes the legal agreements with the applicants.

	MCHF
Swiss Quantum Initiative	6
"transitional measure"	10
Total	16
Overhead (15%) & Costs SNSF	- 2.9
Allocate to new grants (min.)	**13.1**

There is only one call and there will only be one evaluation (same criteria).

The Swiss Quantum Call Steering Committee decides which projects will be funded in the frame of the “transitional measure” or in the frame of the Swiss Quantum Initiative.

Swiss Quantum Call 2024

The Swiss Quantum Call 2024 is based on the SNSF Project funding scheme.

– Submission deadline: **1 February 2024**

– Duration of projects: **1 - 4 years**

– Same **eligibility criteria** for all applicants (early career and established researchers)

– Apply **250kCHF/applicant/year** limit, maximum 1MCHF per year and project

– Quantum Call 2024 grants do **not count to the maximum 2+1 limit** of SNSF project funding grants

– Earliest start of grants: **1 August 2024**

Topics of the call

(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.

Applicants: general eligibility requirements

Same formal eligibility criteria as for SNSF project funding:

- Established researcher 4 years past PhD or with independent research position
- At least 50% employed at an eligible higher education research centre (RIPA Art. 4c) for duration of project
- Make an essential contribution to the project

There can be several applicants on a proposal, if the collaboration brings added value:

- One is the corresponding applicant. He/she must be affiliated to a Swiss Institution
- No hierarchical dependency between applicants
- If there are three or more applicants, then one of them may be based abroad if his/her expertise is essential for the project.

The applicants salaries can not be requested by the Swiss Quantum call 2024 proposal.

Applicants may not submit the same proposal to any other SNSF funding instrument in parallel.

Target audience: early career and established researchers

Eligibility criteria as in SNSF Project funding.

The Swiss Quantum Call Steering Committee assigns 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.

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.

Project Partners and subcontractors

Project partners must not meet the same eligibility criteria as applicants:

– they contribute to the project, but are not responsible for the project
– their contribution and the link to the proposed research must be described in the application
– they can be from outside academia
– they can charge costs for services for the research project to the grant*

The salaries of project partners are not eligible for funding.

Subcontractors are external providers of a service that is necessary to the project. The cost for buying such a service can be charged to the grant*

***The cost of services provided by project partners and subcontractors is limited to 20% of the grant.**

No direct commercial purpose of the research

Research conducted for a direct commercial purposes will not be funded.
This includes e.g., efforts to achieve market-readiness for prototypes, market-introduction, user-studies or performance-optimization not essential for the proposed research.

Collaboration with industry is possible, but:
the principles of research freedom, research independence and freedom to publish must be upheld.

Collaborating partners from the private sector are obliged to sign an agreement of non-commercial use.

Eligible costs: categories

- Personnel (salaries and social security; not the PI)
- Material costs that are directly related to the research work: expendable items, field expenses, travel expenses, equipment (up to 300k CHF)
- Direct costs for using infrastructures, computing time and data
- Conferences and workshops
- Collaboration costs (national & international)
- Costs for coordinating the research project in the case of applications with three or more applicants
- Third-party expenses (project partners, subcontracting)
- Costs of career measures
- Costs of scientific open research data

Proposal submission on www.mysnf.ch

You need:

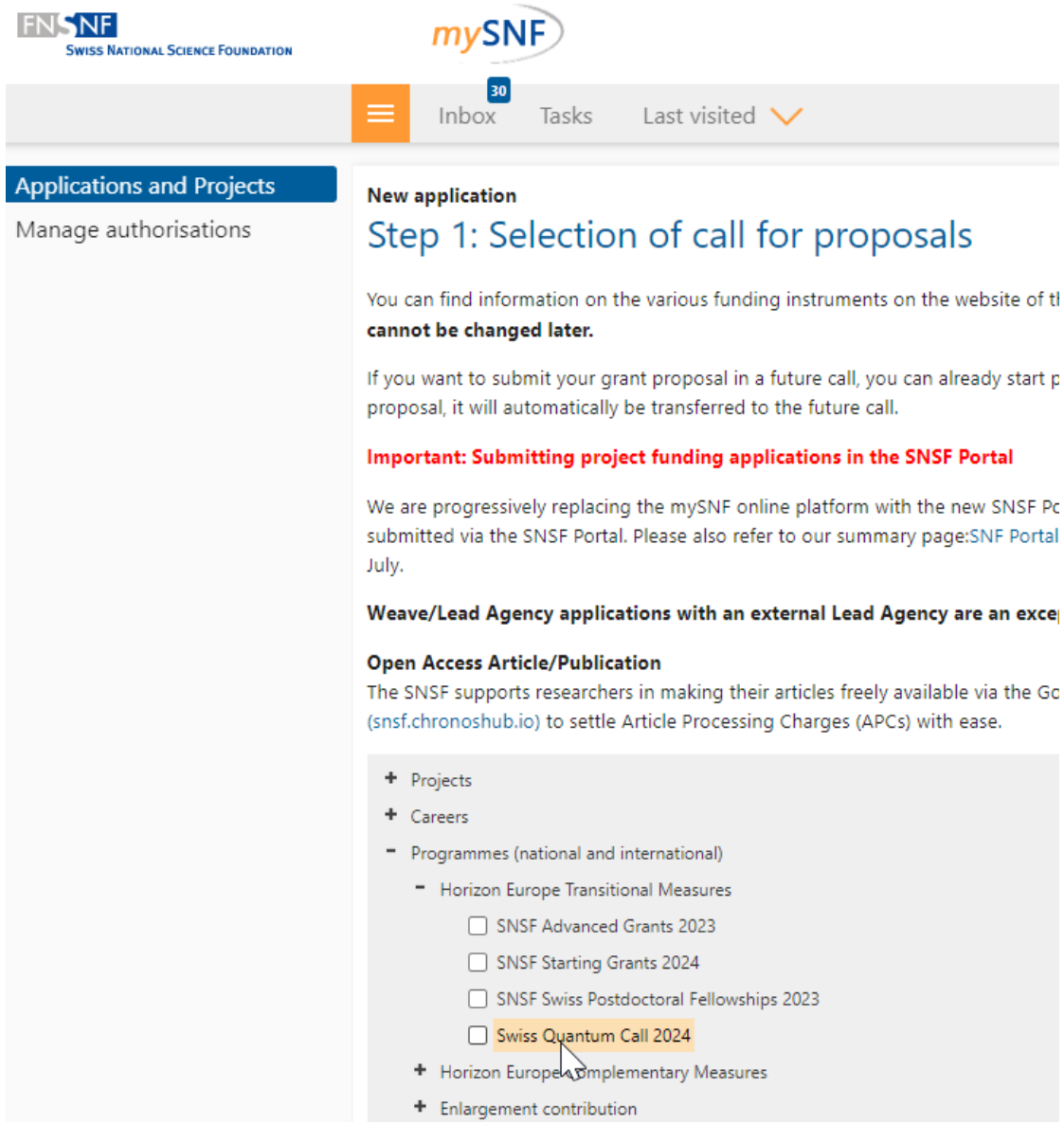
- ***my*snf account.**

Please allow some time for creation of an account.

Applicants must compile their CV according to the SNSF template and upload it on mySNF.

For this, you also need:

- **SWITCH edu-ID**



Proposal submission: Documents & Information

Research plan

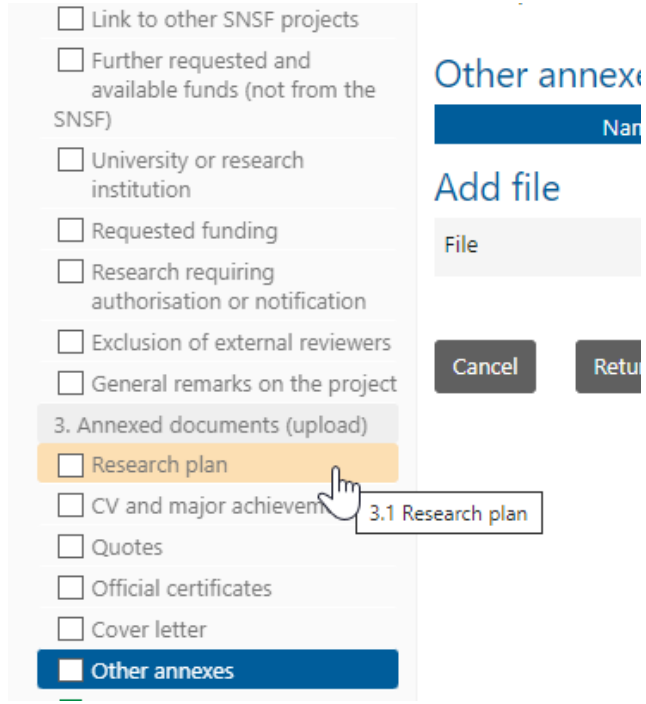
Max **15 pages or 60k characters (17 pages or 68k characters** for collaborative projects) plus summary and bibliography, see *my*SNF for detailed structure,

CV:

Applicants will have to **compile their CV according to the template** on the SNSF Portal and subsequently upload a PDF in the data container “CV and major achievements”.

Other annexes:

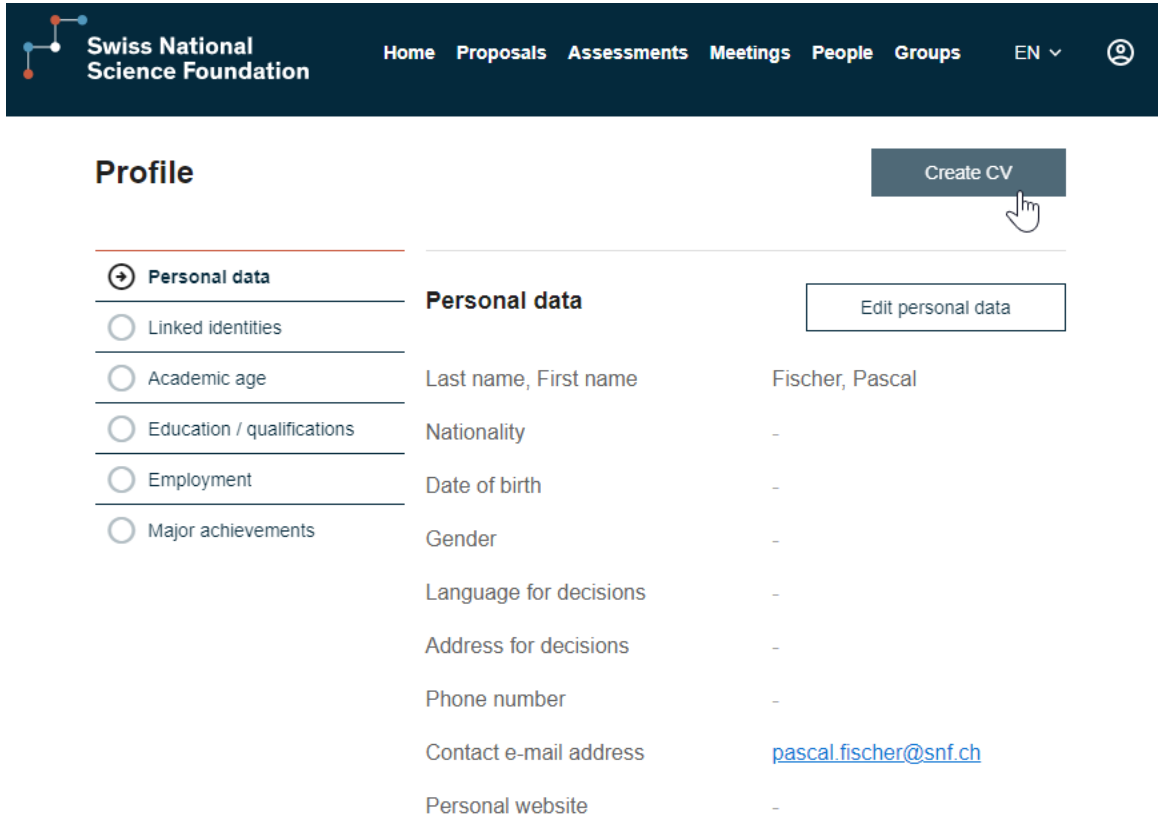
– If applicable, **statement on the relationship** of the proposed research project **with past, ongoing or future Horizon Europe calls in the quantum field** that are not open to participants from Switzerland (max. 3 pages).
– If requested **equipment** > 100kCHF: letter of **commitment from host institution confirming maintenance and operation** of the acquisition is guaranteed;



SNSF CV Template

You need a login for the Portal!

- Academic age
- Education
- Employments
- Up to 3 achievements, with max 10 outputs
- ORCID account

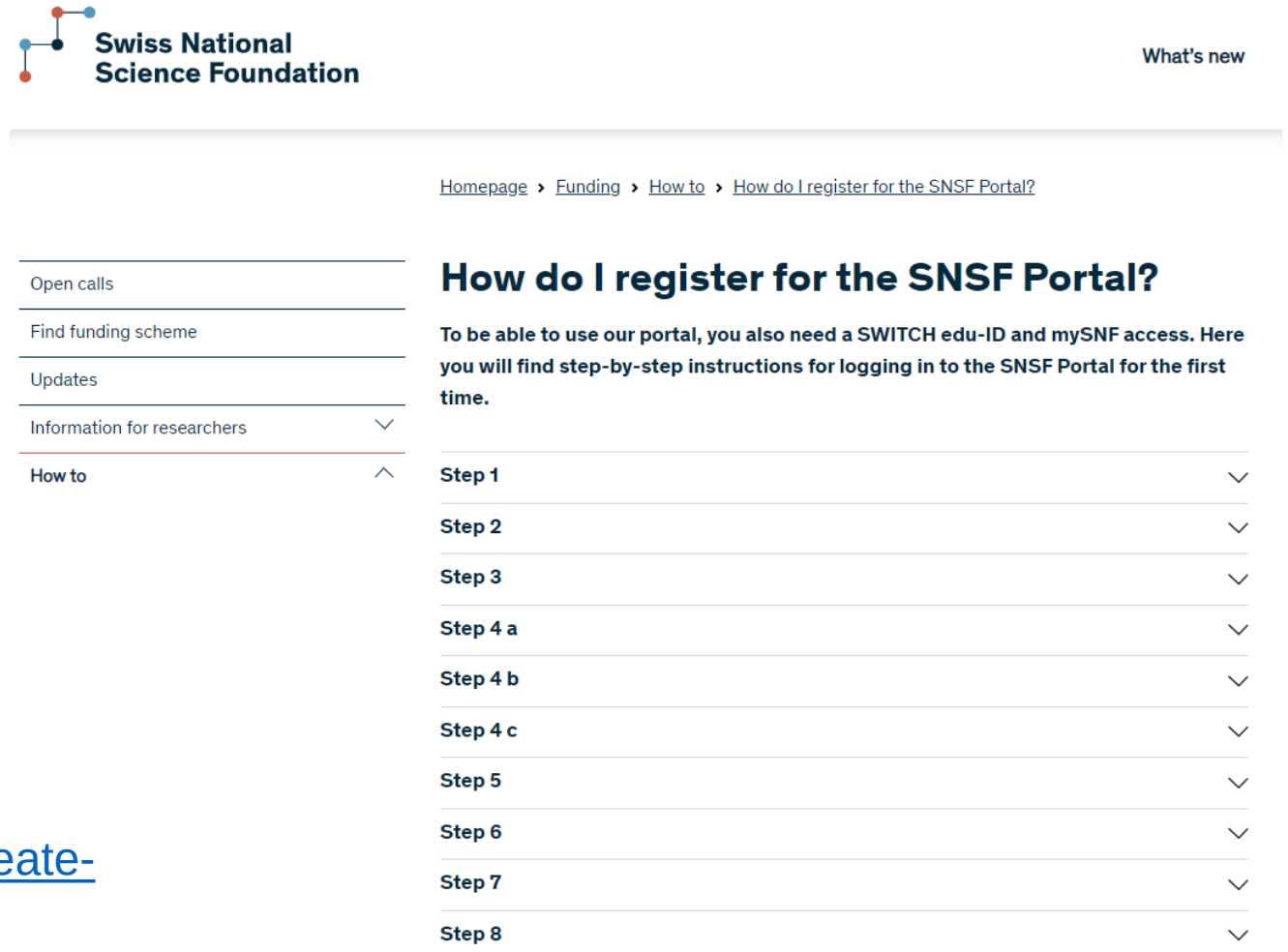


In order to comply with the DORA principles, the SNSF defined a new structure for the CV and requests a standardised set of information from all applicants. **Specifically, applicants will have to compile their CV according to a new template on the SNSF Portal and subsequently upload a PDF in the data container "CV and major achievements".**

The portal can be accessed under portal.snf.ch.

SNSF Portal Login

https://www.snf.ch/en/rk1itpR5ssjT2PE5/page/create-snsf-portal-user-account



Swiss Quantum Call Steering Committee

The Swiss Quantum Call Steering Committee oversees the evaluation of the Swiss Quantum 2024 call 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.

Name	Profile	Field of expertise
Bernd Gotsmann IBM Research Zürich	Senior Researcher at IBM Research Current president of Division II of the SNSF Research Council (RC)	Nanoscale electronics with applications in thermal transport, thermoelectricity, tribology, molecular electronics and nanomechanics
Chiara Macchiavello Italy	Professor of Quantum Information Theory, University of Pavia	Quantum information theory to study the foundations of physics and to obtain practical applications to quantum computation, quantum metrology, quantum cryptography and quantum technology in general.
Klaus Ensslin ETH Zürich	Professor at ETHZ Director of NCCR QSIT (Quantum Science and Technology) Former RC Council member	Electronic properties of novel semiconductor nanostructures controlling material down to the atomic scale, improving the understanding of the quantum properties of electrons in nanostructures.
Tommaso Calarco Germany	Professor at Forschungszentrum Jülich Chairman of the HE Quantum Flagship's Quantum Community Network	Investigating fundamental quantum processes with the goal to error rates and thus improve the computational accuracy of quantum computers – for all qubit types.

Swiss Quantum Call 2024 Evaluation Panel

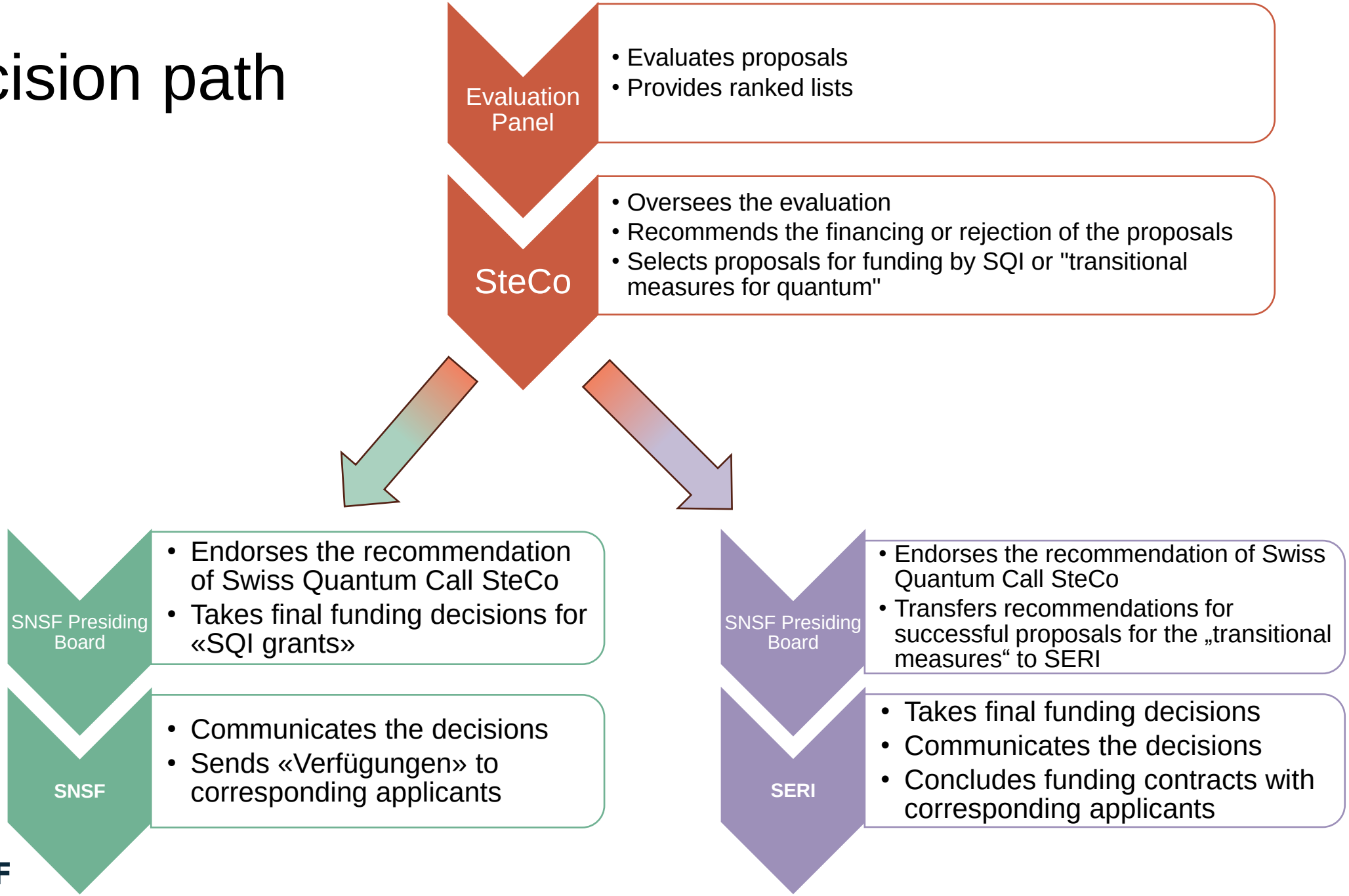
- Consists of national or international experts from the disciplines concerned
- Will be selected by the Swiss Quantum Call Steering Committee
- Are not eligible to submit applications to the Swiss Quantum 2024 call
- Evaluates the proposal following the SNSF Unified evaluation procedure
  - International Peer review
  - At least 2 panel members provide an independent recommendation
  - Discussion in panel
  - Individual voting leads to a proposal ranking

Conflict of Interest handling

– The SNSF will adhere to his stringent Conflict of Interest handling for both, Steering Committee and Evaluation Panel members.

– In addition, members of the Steering Committee and members of the Evaluation Panel may not be applicant or project partner on a proposal.

Decision path



If you still have questions

quantum@snf.ch