

2024 Quantum Voucher Model

Online information event

July 11, 2024

16:00 - 16:45

Please note that this presentation serves as an illustrative summary.
In case of doubt, please refer to the official call document published on our website.



Swiss Quantum Initiative

"2024 Quantum Voucher Model" overview

SCNAT launches a new support instrument as part of the Swiss Quantum Initiative (SQI):

- **2024 Quantum Voucher Model:** up to 50'000 CHF per voucher to make use of existing infrastructure, platforms and services in Switzerland; maximum of two vouchers per applicant
- Decentral approach: voucher holder and infrastructure / platform / service host to form bilateral agreement
- Vouchers to be used at accredited host institutions in Switzerland within 2 years
- Application deadline: August 30, 2024
- Communication of results: November 6, 2024

About us:

The SQI is the federal quantum initiative to strengthen Switzerland's leading position in the field of quantum science and technology; initiated in 2023 and mandated by SERI

Overall budget for 2025 – 2028 of ca. 80 Mio. CHF (to be confirmed)

Three main institutions to operationalize this initiative: SNSF, Innosuisse, SCNAT (leading house for this call)

Why this voucher model?

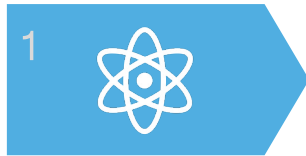
- Switzerland has numerous **infrastructures and platforms for research and innovation** which are relevant for quantum science and technology.
- There is significant amount of **unique expertise and know-how** in dealing with these infrastructures and platforms.
- The **exchange of know-how** and the effective **utilization of infrastructures, platforms and related services** can still be improved. The 2024 Quantum Voucher Model aims to support and catalyze these efforts.

Characteristics of this model

- Decentral approach – building on collaboration and trust within the Swiss quantum ecosystem
- Voucher holder and infrastructure / platform / service host to form bilateral agreement
- Making more efficient use of what is already there (not intended for the expansion of new infrastructure)
- Fostering collaboration: vouchers shall not be used at own institution
- This is a new pilot instrument; inspired by existing (but different) voucher models in Switzerland and internationally

SQI: More than a scientific initiative - simplified* view on the "Quantum Value Chain"

Illustrative



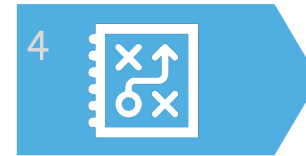
1
Basic
research



2
Applied
research



3
Tech transfer &
prototyping



4
Commercial
startup



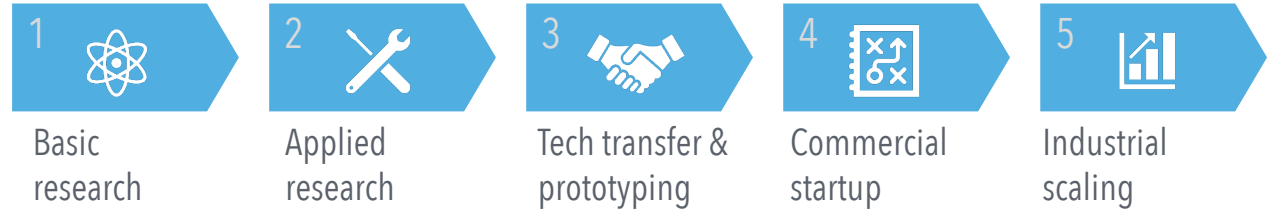
5
Industrial
scaling

SQI goal: "Strengthen Switzerland's leading position
across the entire value chain"

* Illustrative. Not strictly linear.

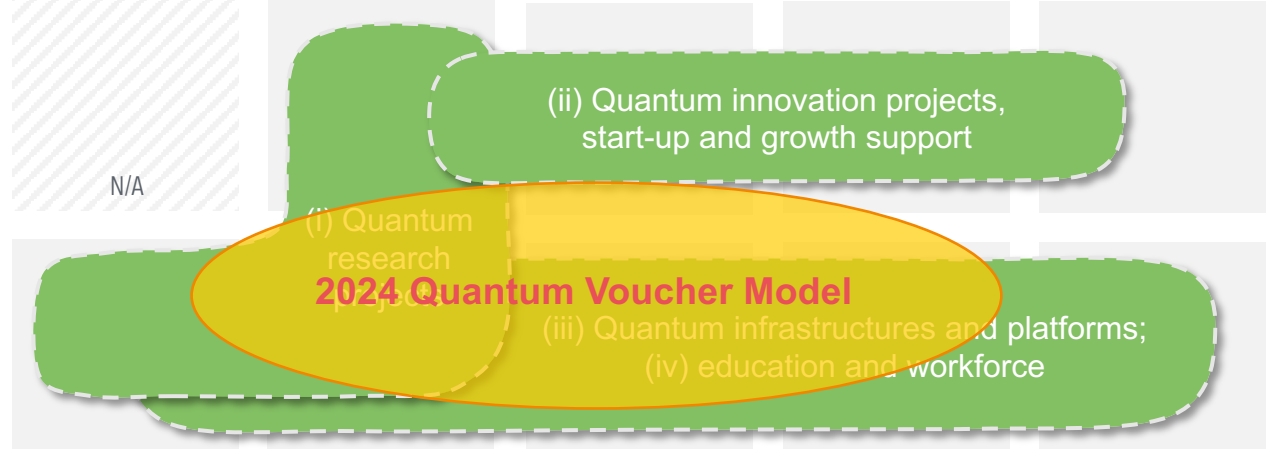
Positioning of this call within the SQI

ILLUSTRATIVE
- not to scale -



Outcome-focus: towards specific applications. Outcomes targeted at specific projects or beneficiaries (e.g. startup project funding)

Fundamental research and foundations: agnostic to specific beneficiaries or direct commercial outcomes (e.g. quantum infrastructure support)



Typical technology readiness levels (TRL):



Compare SQC strategic recommendations (2025-2028): https://quantum.scnat.ch/de/science_and_innovation

Logical flow (schematic)

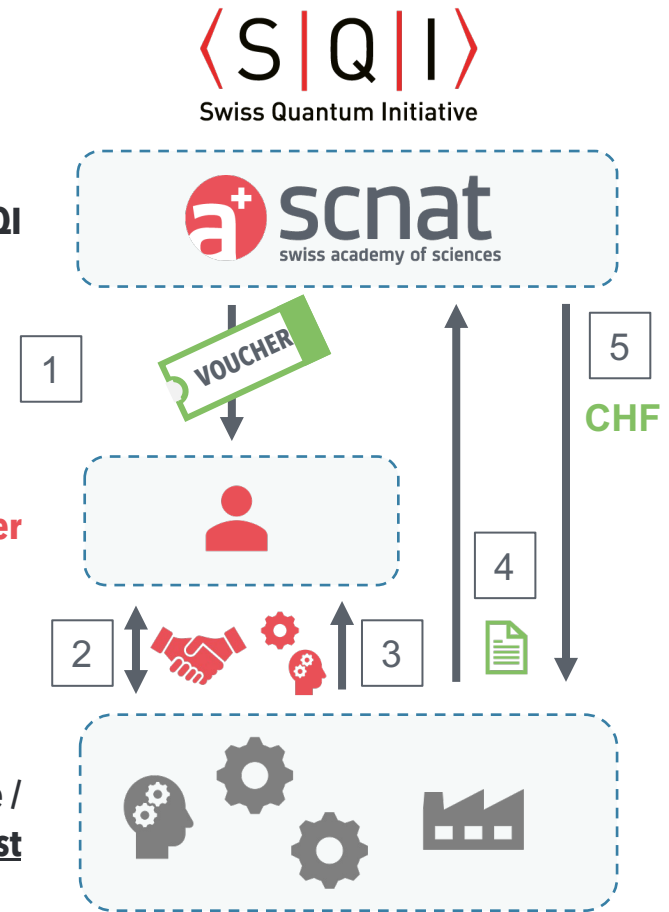
0 / Start: applicant submits proposal – with a nominated infrastructure / platform / service host

1. Successful applicant gets a voucher from SCNAT
2. Bilateral agreement between voucher holder and infrastructure host
3. Voucher holder uses facilities and know-how of infrastructure host
4. Infrastructure host sends report and invoice to SCNAT
5. SCNAT checks and pays the invoice

Applicant / voucher holder

Infrastructure / platform / service host

SCNAT for the SQI



General conditions

- Participation in the voucher model is open to academia and industry (defined thematic field).
- Vouchers can only be redeemed at accredited institutions in Switzerland; no cash-flow from SQI to industries.
- One bucket of vouchers for this pilot phase, no designated sub-categories.
- Use of vouchers at the applicant's own institution is not allowed. Well-justified exceptions to this rule may be considered on a case-by-case basis.
- Redeeming vouchers: cash flow for documented use of infrastructure, platform or services (copy of invoices); up to maximum voucher value.
- Rationale of work on infrastructures, platform or services needs to be argued. However, there will not be an evaluation of "excellence in science".

Topic areas in focus

- Quantum communication
- Quantum computation
- Quantum simulation
- Quantum sensing and quantum metrology

Proposals in connection with the following related fields are also welcome:

Materials for quantum devices, control hardware, systems engineering, quantum theory and computer sciences.

Costs which may be covered by the vouchers

- Facility costs
- Consumables
- Computing time
- Services provided by the host or by third parties which are directly related to the use of the infrastructure or platform, including but not limited to: setup of the work, training, help with the design of workflows or architectures, feasibility assessments
- Travel and accommodation directly related to the use of the infrastructure or platform;
- Overhead directly related to the use and administration of the infrastructure, platform or service, not exceeding 5% of the voucher value.

Positioning of the voucher model

The voucher model



- improves the utilization of existing infrastructure and platforms and related know-how exchange



- is not a competition for the best research proposals
- does not support the development of commercial products

Timeline 2024 Quantum Voucher Model



Where to apply and contact

Contact: SQI office

quantum@scnat.ch

+41 31 306 93 67

SQI website:

<https://quantum.scnat.ch>

NOTE: Phone number format for initial registration:
to start with "+41 ..." (no blanks)

Where to apply:



Q&A

BACKUP: application tool screenshots

Application tool (contact info; 1 or 2 vouchers)

Sections: [Applicant Profile](#) [Voucher need](#) [Voucher 1 Proposal](#) [Comments and questions](#)

Application Submitted: 3.7.2024, 14:15

Applicant Profile ▼

Prefix	First Name*	Middle Name or Initial	Last Name*
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Email Address*

Voucher need ▼

How many vouchers are you applying for?

[Clear selection](#)

<input checked="" type="radio"/> 1	<input type="radio"/> 2
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Application tool (title; high-level description)

Voucher 1 Proposal

Proposal title*

Relating to the envisage use of the infrastructure, platform or service

Main themes and goals of the use of the infrastructure, platform or service*

High-level description of work to be done (max. 300 words)

Note: maximum word count.

Overall, this is roughly a
2-page proposal

Application tool (host organization; rationale)

Host of the infrastructure, platform or service*

Name of the accredited institution which will be the host of the infrastructure, platform or service

Just the name of the institution
(yes .. It's a pretty big text field for that)

Host contact

Responsible contact at the host institution of the infrastructure, platform or service (please enter the phone number within Switzerland starting with 0041 ...)

First Name*

Last Name*

Role or Title

Email Address*

Phone Number*

Note: phone number format

Short rationale*

Why the proposed support with public funding is of relevance in the context of the SQI (max. 300 words)

Compare: definitions and evaluation criteria in the call paper

- Relevance for Swiss industries;
- Enabling work towards breakthroughs in the underlying scientific approaches (incl. algorithms);
- Accessibility: the infrastructures, platforms, services are in principle open to the entire Swiss community (science and industry);
- Leverage effect: building on existing strengths and expertise in Switzerland;
- Feasibility of implementation.

Application tool (TRL range; requested amount)

Main contributions of the work to TRL (Technology Readiness Level) range

For the description of the TRLs see here: <https://quantum.scnat.ch/de/id/ygzQ2?embed=LXmqB>

Low end of TRL range*

Rough estimate



High end of TRL range*

Rough estimate



Budget and Timeline

Total costs*

Maximum per voucher: 50'000 CHF

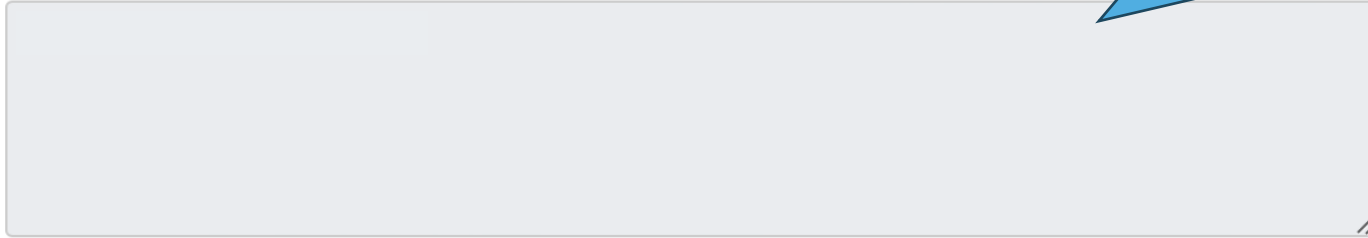
Number has to be 50000 or lower.

To roughly categorize the proposals:
Which technology readiness levels (TRL)
will the proposed use of infrastructure,
platforms, service mainly address?

Application tool (high-level plan)

High-level plan for usage (budget and timeline)*

No individual contracts or detailed cost items required (max. 200 words)



High-level description.
Incl. list of key supplier as needed

Application tool (comments, questions as needed)

Comments and questions

Additional comments on this application

(max. 100 words)

Habe ich eigentlich keine mehr.

Words Remaining: 95

Questions to the SQI

(max. 100 words)

Habe ich hoffentlich vorher gefragt.

optional