

CALL FOR INTEREST

Access to quantum computing resources

DeiC Q-Access programme

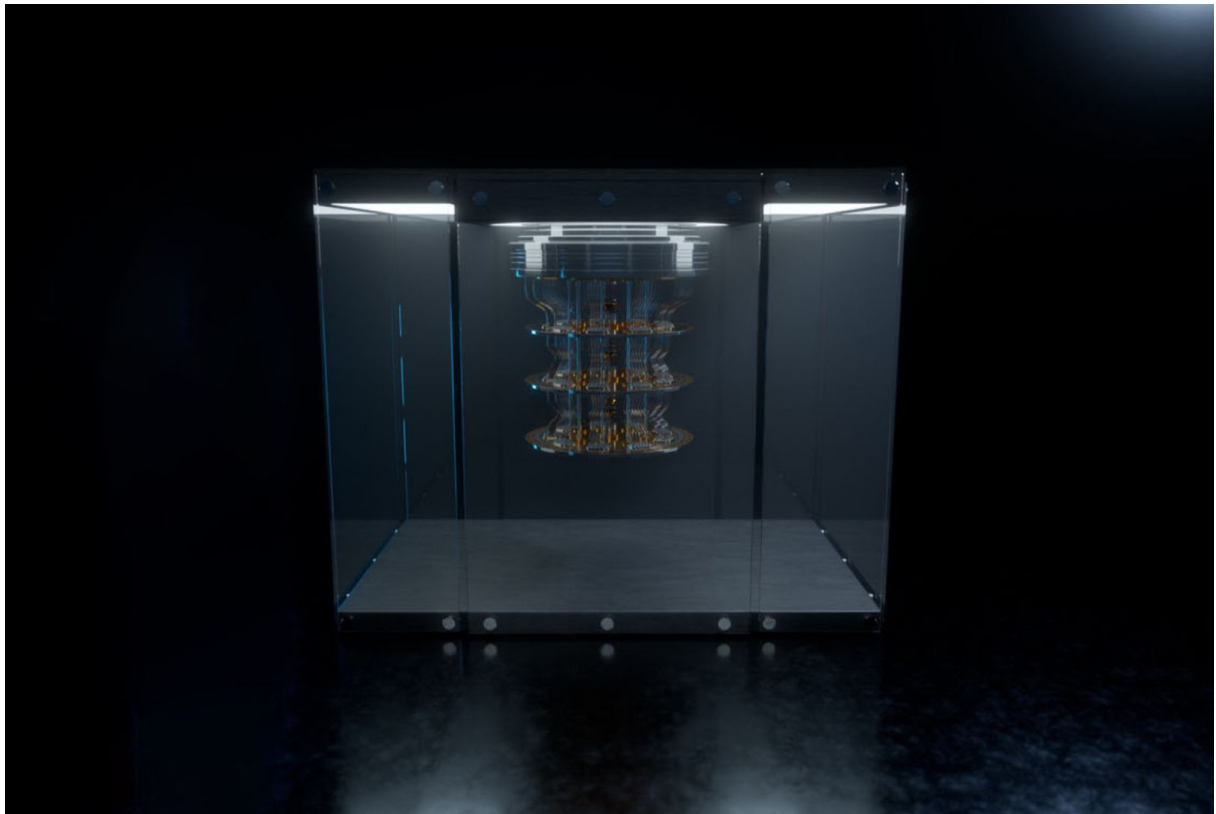


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1. Key information about the call

Call opens and is published on <https://www.deic.dk/da/quantum-technology/grants-and-funding>:
November 15, 2024

Call closes

January 6, 2025, 23:59 (CEST)

Notification of access

Expected February 2025

Earliest access start date

Estimated February 2025

Duration of access

12 months

Evaluation committee

Q-Access evaluation committee

Contact

For general questions regarding the call, please contact DeIC's Project Manager of the Q-Access programme, Maria Tammelin Gleerup, [via the form for questions regarding calls on DeIC Quantum Back Office](#).

For questions about technical and scientific quantum computational needs concerning the application, please contact DeIC's Quantum Computing Infrastructure Developers, Muyang Liu and Greyson Katzel Potter, [via the form for consult with experts in quantum computing on DeIC Quantum Back Office](#).

For more information about DeIC

<https://www.deic.dk>

<https://deic.dk/da/quantum-infrastructure>

<https://www.deic.dk/da/q-access>

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2. Background and implementation

In the Danish National Strategy on Quantum Technology, Part 1, DeIC is appointed to increase Danish user access to quantum computers, including various test and technology platforms for a quantum computer¹.

Therefore, DeIC has created the Q-Access initiative to procure and distribute access to quantum computing hardware and simulators of quantum computing hardware on classical computers (HPC facilities) for Danish universities, industry and the public sector².

DeIC has allocated funds of 11 Mio. DKK for this call, of which a maximum of 1 MDKK is allocated for quantum simulation on the national HPC resources.

In addition to providing access to quantum computing resources, DeIC will offer expert counselling and technical support to Danish users, enabling them to harness the power of quantum computing for their projects and activities.

To accommodate differentiated access demands to different platforms and varying levels of how close to the actual quantum computing hardware this access should be, DeIC has decided to implement a two-stage model of providing access to quantum computing resources incl. heavy-duty simulator access on classical HPC systems:

- 1) Sandbox access to cloud-based multi-user service provider platforms via the European OCRE³ framework agreement for testing and exploratory work.
- 2) Access to specific quantum hardware and corresponding hardware-specific simulators for users with specific high-level research needs.

This call for expression of interest aims to map and validate the specific quantum computing user demands and needs regarding point two above, before entering procurement contracts with specialized quantum computing suppliers and allocating dedicated access to applicants.

The sandbox access will be made available via a simple online request form on DeIC's website, and it is thus not covered by this call.

As the large cloud computing service providers also feature quantum computing-specific hardware from quantum suppliers, DeIC will decide through which vendor to provide access to the selected applications.

DeIC reserves the right to a potentially longer processing time for HPC requests.

DeIC will announce one annual call in 2024. The first access is scheduled to open in Q1 2025. The next call opens in the beginning of July 2025. Two annual application rounds are expected to be published onwards.

The calls will be posted on DeIC's website and through direct e-mails to the Danish universities and quantum hubs.

This call is done within the legal framework of DeIC stated in Ministerial Order (bekendtgørelse) no 615 of May 29, 2023.

¹ The Danish National Strategy on Quantum Technology, Part 1, page 22

² Read more about the Q-Access initiative here: <https://www.deic.dk/da/q-access>

³ Open Clouds for Research Environments - an EU-compliant procurement framework for cloud infrastructure as a service (IaaS), platform as a service (PaaS) and associated software as a service (SaaS)

3. Application guidelines and requirements

These guidelines are intended to assist you in the proposal process when applying for this call. It is important that you carefully read these guidelines before initiating the application process, as the guidelines contain important instructions regarding the call.

Further formal requirements and guidelines are included in the application template.

The application consists of a filled-out template attached to this call, along with appendix files that are listed in the application template.

The following provisions apply to all applications:

- Format: All application documents must be submitted in PDF format
- Language: All text must be written in English
- Size limit: Please see the attached application template
- Duration of access period: Up to 12 months. If access is needed for a longer period, e.g. during a PhD scholarship, prolonged access can be applied for in the next call opening in July 2025

Budget

Access to quantum computing resources worth of up to 70% of the total 11 Mio. DKK can be applied for.

By applying for this call, applicants accept the possibility of being granted an alternative amount of resources if DeiC's evaluation committee assess that there is a deviation between the needed amount and the requested amount.

Furthermore, DeiC can cut your application budget if it is assessed that certain parts of the budget are not sufficiently justified or are not necessary to complete the project.

If the entire applied amount cannot be granted, the applicant can, in the application, state their willingness to receive support for part of the project if the applicant assesses that it would be meaningful to implement parts of the project.

Eligibility: Who can apply?

DeiC invites proposals from users affiliated with a Danish CVR-registered entity. DeiC will reserve the right to consult the Danish National Security and Intelligence Service regarding potential espionage, threat assessment, etc.

For research projects, the PI must hold a PhD and be employed at one of the Danish universities. A researcher can be PI or co-PI on more than one proposal.

Students can also apply, in that case, the application must be accompanied by a letter of approval from the student supervisor, confirming the student's need for quantum computing/HPC resources.

To promote the use of quantum resources in all scientific fields, DeiC has pre-reserved 10% of the offered resources for possible applications from the area of social sciences and humanities (SSH). If no qualified applications are received, the resources will be transferred to the overall pool.

By applying, the applicant declares in good faith, not within the last two years at the time of application to be found guilty of research misconduct or questionable research practice by The Danish Board on Research Misconduct, cf. Act No. 383 of April 26, 2017, on research misconduct etc.

Applicants from the private sector can only apply for support related to the development of new business activities. Due to national law, DeiC cannot support existing business activities via this call and the Q-Access programme.

Submission of application

DeiC invites applications sent by e-mail to qaccess@deic.dk. Applicants will receive an e-mail confirming the receipt immediately after submission. If you do not receive an e-mail receipt, please contact Maria Gleerup, maria.gleerup@deic.dk as soon as possible.

The deadline for this call is 6/1/2025, 23:59 (CEST).

Applications received after the deadline will not be considered. If the required material is incomplete, the proposal may be rejected administratively without substantive consideration.

4. Evaluation procedure and selection process

Key criteria for assessment of applications

- Experience and qualifications of the applicant(s) incl.:
 - Necessary scientific qualifications for implementing the project
 - Adequate plan for division of labour and task management
- The scientific/industrial/societal value creation of the project incl.:
 - Short and long-term impact in terms of theoretical, methodical and empirical progress
 - Cost-effectiveness
 - Explanation of ethical aspects, if relevant
- Technical feasibility:
 - Sufficient allocation of internal organisational resources for the activity
 - Proportionality between requested QC resources and expected outcome
 - Proportionality between proposed activities and requested QC resources
- Quality of the proposal, incl. credible descriptions of:
 - Desired results and the means to achieve them
 - Justification and technical specifications of resources
- Dissemination of results:
 - Satisfactory reflections on open-access publications and IP, according to relevance

Evaluation committee

The evaluation committee consists of a permanent group of established researchers with strong experience in quantum computing.

The rules for competence to act/incapacity follow the rules of the Public Administration Act and applicable principles of administrative law in the area.

Evaluation process

DeiC's quantum secretariat will screen all applications for compliance with formal requirements. In special cases, DeiC can request additional information from applicants during the screening.

All received applications that fulfil the formal requirements and contain all the required information as stated in section 3 above and in the application template will be assessed by the evaluation committee.

The committee makes recommendations to DeiC's board which makes the final decision.

Applications will be evaluated in open competition according to the procedure and evaluation criteria described in this call.

In case of disagreement, this is decided by a simple majority in the committee. In the event of a tie, the committee chairperson's vote is decisive.

Appeals

According to Ministerial Order no. 615 of 29 May 2023 (Ministerial Order on Danish e-Infrastructure Consortium's Tasks and Organization, etc.) paragraph 18, decisions on the management and allocation of funds for digital research infrastructures, including the allocation of computation time, cannot be appealed to another administrative authority.

5. Access management and requirements

Access notification letter

Selected applicants will receive an access notification letter that will serve as terms of reference along with this call text and referred legal documents.

Changes to the activity

You are obliged to inform DeiC by e-mail to qaccess@deic.dk immediately if essential prerequisites for the implementation of the project are no longer fulfilled.

The resources must be used in the allocated period. If the applicant does not have the opportunity to use resources in the allocated period, DeiC must be informed by e-mail to qaccess@deic.dk. If possible, in the total allocation of the national resources, the applicant can, on request, postpone the use of the resources.

The allocated access cannot be transferred to another CVR-registered entity.

Reporting and communication

Users are required to submit a short self-assessment report (est. 1-2 pages) in the middle and end of the access period to keep DeiC updated on the implementation of the project.

DeiC will provide the reporting template upon access notification.

Users are required to provide input to use case stories for DeiC's external communication when the project ends.

Acknowledgements

If your project has been allocated access to quantum computing resources, you are required to acknowledge and/or quote this in any publications of results from calculations performed on the quantum computing facilities.

FAIR principles

DeiC would like project-generated data to be managed in accordance with the FAIR principles (Findable, Accessible, Interoperable and Reusable) as described in EU's "Guidelines on FAIR Data Management in Horizon 2020" (Version 3.0, 26 July 2016)²⁰.

Thereby it is possible to build on former research results, verify results by other scientists, avoid work duplication, accelerate innovation and create transparency and credibility of the results.

6. Data management

According to Article 13 of the EU's General Data Protection Regulation (GDPR), we are obliged to provide you with some information about how your data is processed in connection with DeIC receiving your application.

The data you have provided in your application is used to assess whether you can receive access to quantum computing resources from DeIC.

All responses will be treated confidentially and in accordance with the rules of relevant legislation.

The activity's data will be stored for as long as it is assessed that there will be an administrative need for this data. After which data may be covered by DeIC's obligation to submit to the Danish National Archives.

You can withdraw your application at any time before the submission deadline. After that, your data will be processed according to the rules of administrative law. DeIC has the right to reject an application if the required/necessary documentation is not available.

When the call closes, your application will be processed by the Evaluation Committee consisting of a permanent group of established researchers with strong experience in quantum computing.

DeIC publishes basic information (activity title, organisation and responsible person(s)) about the activities that have received support on their website. In principle, DeIC does not pass on any other information about the activities.

DeIC may share your information with the Danish National Security and Intelligence Service if deemed relevant.

As a registered applicant, you have the right to exercise your rights as a registered applicant, cf. the GDPR:

- the right to have incorrect information about yourself corrected,
- the right to have information about you deleted before the time for general deletion occurs,
- the right to have the processing of your personal data restricted,
- the right to object to the otherwise lawful processing of your personal data,
- the right to receive your personal data in a structured, commonly used and machine-readable format and to have this personal data transferred from one data processor to another without hindrance.

If you have questions about this call, you can contact DeIC's Project Manager of the Q-Access programme, Maria Tammelin Gleerup, [via the form for questions regarding calls on Quantum Back Office](#).

If you have questions about data processing, you are welcome to contact DeIC's personal data consultant Susanne Groth, susanne.groth@deic.dk.

If you wish to complain about the processing of your data, you can contact the Danish Data Protection Agency, Borgergade 28, 5, 1300 København K, telephone number: 33 19 32 00 or via e-mail: dt@datatilsynet.dk.

7. About Danish e-Infrastructure Consortium (DeiC)

The Danish e-infrastructure Consortium (DeiC) is tasked with the mandate to develop and coordinate cooperation on digital research infrastructure between universities covered by the Danish University Act.

DeiC's vision is that researchers at the Danish universities must have access to a digital infrastructure that enables research and education at a high international level.

Other relevant institutions with educational and research activities can participate in the collaboration after approval by DeiC's board.

DeiC's board consists of members at management level from the eight Danish universities, who all have a mandate from their own university. In addition, the Rectors College appoints a board chairperson for DeiC.

DeiC's legal basis is described in executive order BEK 615 of 26/05/2023.