

## 422828-2026 - Result

Denmark – Super computer – Trapped-Ion Quantum Computers - cloud emulator and H-Series devices

OJ S 117/2026 19/06/2026

Contract or concession award notice – standard regime

Supplies - Services

### 1. Buyer

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#### 1.1. Buyer

Official name: Danmarks Tekniske Universitet - DTU

Email: [aasst@dtu.dk](mailto:aasst@dtu.dk)

Legal type of the buyer: Body governed by public law

Activity of the contracting authority: Education

### 2. Procedure

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#### 2.1. Procedure

Title: Trapped-Ion Quantum Computers - cloud emulator and H-Series devices

Description: Type: Cloud access to high fidelity trapped-ion quantum computing hardware, with fully connected qubits and capable of mid-circuit measurement, as well as cloud access to its efficient emulation software capable of emulating hardware-specific noise. Amount: HQC credits: 80,000 Emulator credits: 400,000 The research project, for which this quantum computing access is needed, aims to demonstrate a novel Quantum Phase Estimation (QPE) algorithm on real quantum hardware. The experiment targets an ion-trap platform with full connectivity and high-fidelity two-qubit gates that is ideally suited for testing the scalability and practical feasibility of energy-estimation algorithms in quantum chemistry. The project will compute ground-state energies of small to intermediate molecular Hamiltonians characterized by all-to-all fermionic interactions – systems that challenge traditional computational chemistry methods. By running the algorithm across systems of increasing size (range of several dozen qubits) and varying circuit depths (up to thousand two-qubit gates), the project will map the trade-off between precision and scalability.

Procedure identifier: 70a4e304-04df-4fe6-b556-9c2805dac2c3

Previous notice: 7cf0c4e7-198c-4666-8e13-99027ee2347c-01

Internal identifier: 10756

Type of procedure: Negotiated without prior call for competition

##### 2.1.1. Purpose

Main nature of the contract: Supplies

Additional nature of the contract: Services

Main classification (cpv): 30211100 Super computer

##### 2.1.2. Place of performance

Postal address: Universitetsparken 5

Town: København Ø

Postcode: 2100

Country subdivision (NUTS): Byen København (DK011)

Country: Denmark

Additional information: University of Copenhagen Department of Mathematical Sciences

#### 2.1.4. General information

Additional information: DTU (DeIC) is the financing part in this purchase. University of Copenhagen is the licensee and will be the party that will use the purchase.

**Legal basis:**

Directive 2014/24/EU

## 5. Lot

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### 5.1. Lot: LOT-0000

Title: Trapped-Ion Quantum Computers - cloud emulator and H-Series devices

Description: Type: Cloud access to high fidelity trapped-ion quantum computing hardware, with fully connected qubits and capable of mid-circuit measurement, as well as cloud access to its efficient emulation software capable of emulating hardware-specific noise. Amount: HQC credits: 80,000 Emulator credits: 400,000 The research project, for which this quantum computing access is needed, aims to demonstrate a novel Quantum Phase Estimation (QPE) algorithm on real quantum hardware. The experiment targets an ion-trap platform with full connectivity and high-fidelity two-qubit gates that is ideally suited for testing the scalability and practical feasibility of energy-estimation algorithms in quantum chemistry. The project will compute ground-state energies of small to intermediate molecular Hamiltonians characterized by all-to-all fermionic interactions – systems that challenge traditional computational chemistry methods. By running the algorithm across systems of increasing size (range of several dozen qubits) and varying circuit depths (up to thousand two-qubit gates), the project will map the trade-off between precision and scalability.

Internal identifier: 10756

#### 5.1.1. Purpose

Main nature of the contract: Supplies

Additional nature of the contract: Services

Main classification (cpv): 30211100 Super computer

#### 5.1.2. Place of performance

Postal address: Universitetsparken 5

Town: København Ø

Postcode: 2100

Country subdivision (NUTS): Byen København (DK011)

Country: Denmark

Additional information: University of Copenhagen Department of Mathematical Sciences

#### 5.1.3. Estimated duration

Duration: 12 Months

#### 5.1.6. General information

Procurement Project not financed with EU Funds.

The procurement is covered by the Government Procurement Agreement (GPA): yes

Additional information: DTU (DeIC) is the financing part in this purchase. University of Copenhagen is the licensee and will be the party that will use the purchase.

#### 5.1.10. Award criteria

**Criterion:**

Type: Quality

Name: Quality

Description: Given the nature of the procurement, quality constituted a decisive factor

Category of award weight criterion: Weight (percentage, exact)

Award criterion number: 100

#### 5.1.15. Techniques

**Framework agreement:**

No framework agreement

**Information about the dynamic purchasing system:**

No dynamic purchase system

#### 5.1.16. Further information, mediation and review

Review organisation: Klagenævnet for Udbud

Information about review deadlines: Complaint that the Contracting Authority, contrary to the Public Procurement Act, has concluded a contract without prior publication of a contract notice in the European Union Official Journal must be submitted no later than 30 calendar days from the date after a contract award notice has been published by the Contracting Authority in the European Union Official Journal and that contract award notice includes the grounds for the decision to award the contract directly, cf. lov om Klagenævnet for Udbud (Complaints Board for Tenders) § 7, section 3.

Organisation providing additional information about the procurement procedure: Danmarks Tekniske Universitet - DTU

Organisation providing offline access to the procurement documents: Danmarks Tekniske Universitet - DTU

Organisation providing more information on the review procedures: Konkurrence- og Forbrugerstyrelsen

Organisation whose budget is used to pay for the contract: Danmarks Tekniske Universitet - DTU

Organisation executing the payment: Danmarks Tekniske Universitet - DTU

## 6. Results

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Value of all contracts awarded in this notice: 840 000,00 USD

**Direct award**

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Justification for direct award: The contract can be provided only by a particular economic operator because of an absence of competition for technical reasons

Other justification: Quantinuum has been identified as a unique provider of both quantum computing hardware and cloud emulation. Quantinuum's H-Series processors are the top of the market for trapped-ion quantum computers and offer not only some of the best fidelity available for gate operations, but also all-to-all connectivity and mid-circuit measurements. The Quantinuum H2 processor has 56 fully connected qubits and boasts a single-qubit gate fidelity of 99.997% and two-qubit gate fidelity of 99.87%, which will allow to significantly scale computations beyond what can be done classically on simulators. The H2 processor has a proven track record of successfully implementing proofs of concept including for example the creation of non-Abelian topological orders and anyons, which are very closely related to the TQFT (topological quantum field theory). The Quantinuum Helios processor has approximately 98 fully connected qubits and 50 logical qubits and thus set new standards for trapped-ion computers with all-to-all connectivity. We hope to be able to demonstrate significant advances in several field using this new machine. Quantinuum's processors also allow for mid-circuit measurement unlike the other players in the trapped-ion quantum computing space, which is

an essential technical feature for several of the applications in the research project. Access to Quantinuum through Microsoft Azure is not sufficient, as some of Quantinuum's features related to real-time, adaptive and fault-tolerant quantum computing are only available through direct access using their specialized software. The features include Dynamic, Real-time Circuit Execution, Arbitrary-Angle ZZ Gates, Advanced Quantum Error Correction (QEC) Protocols, Direct Access to H-Series Emulator (via Nexus), Measurement-Dependent Control Flow and Full QCCD Control. Furthermore, Quantinuum's newest quantum computer, Helios, is not yet available through Microsoft Azure. Access to Helios with its groundbreaking computing power and accuracy is necessary for implementation of the research project. Moreover, the potential for pulse-level access and direct connections with the experts at Quantinuum are essential to fully realize the research project's goals. The other major players with commercially available trapped-ion quantum computers has been part of the market dialogue. Some suppliers focuses on rack-mounted, modular machines topping out at 20 qubits, which is insufficient for this project. On the other hand, other suppliers has a closer offering to Quantinuum. There is one supplier whose current best offering, the newly released machin has 64 algorithmic qubits and 100 physical qubits but lacks in gate quality, which means that the desired number of gates per circuit cannot be achieved. Ultimately, Quantinuum is the only provider suitable for all the activities in the research project.

#### **6.1. Result lot identifier: LOT-0000**

Winner selection status: At least one winner was chosen.

#### **6.1.2. Information about winners**

##### **Winner:**

Official name: Quantinuum

##### **Tender:**

Tender identifier: Offer - Trapped-Ion Quantum Computers - cloud emulator and H-Series devices

Identifier of lot or group of lots: LOT-0000

Value of the tender: 822 560,00 USD

Subcontracting: No

##### **Contract information:**

Identifier of the contract: Contract

Date on which the winner was chosen: 10/03/2026

#### **6.1.4. Statistical information**

##### **Summary of the review requests the buyer received:**

Number of complainants: 0

##### **Received tenders or requests to participate:**

Type of received submissions: Tenders

Number of tenders or requests to participate received: 1

## **8. Organisations**

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### **8.1. ORG-0001**

Official name: Danmarks Tekniske Universitet - DTU

Registration number: 30060946

Postal address: Anker Engelunds Vej 1

Town: Kgs. Lyngby

Postcode: 2800

Country subdivision (NUTS): Københavns omegn (DK012)

Country: Denmark  
Contact point: Anna Storch  
Email: [aasst@dtu.dk](mailto:aasst@dtu.dk)  
Telephone: +45 999999  
Internet address: <https://www.dtu.dk>  
Buyer profile: <https://eu.eu-supply.com/ctm/company/companyinformation/index/165863>

**Roles of this organisation:**

Buyer  
Organisation providing additional information about the procurement procedure  
Organisation providing offline access to the procurement documents  
Organisation whose budget is used to pay for the contract  
Organisation executing the payment

**8.1. ORG-0002**

Official name: Klagenævnet for Udbud  
Registration number: 37795526  
Postal address: Nævnenes hus, Toldboden 2  
Town: Viborg  
Postcode: 8800  
Country subdivision (NUTS): Østjylland (DK042)  
Country: Denmark  
Email: [kfu@naeveneshus.dk](mailto:kfu@naeveneshus.dk)  
Telephone: +45 35291000  
Internet address: <http://www.kfu.dk>

**Roles of this organisation:**

Review organisation

**8.1. ORG-0003**

Official name: Konkurrence- og Forbrugerstyrelsen  
Registration number: 10294819  
Postal address: Carl Jacobsens Vej 35  
Town: Valby  
Postcode: 2500  
Country subdivision (NUTS): Byen København (DK011)  
Country: Denmark  
Email: [kfst@kfst.dk](mailto:kfst@kfst.dk)  
Telephone: +45 41715000  
Internet address: <http://www.kfst.dk>

**Roles of this organisation:**

Organisation providing more information on the review procedures

**8.1. ORG-0004**

Official name: Quantinum  
Size of the economic operator: Large  
Registration number: Quantinum  
Postal address: 303 S Technology Drive  
Town: Broomfield  
Postcode: CO 80021  
Country: United States

**Roles of this organisation:**

Tenderer

**Winner of these lots: LOT-0000**

**8.1. ORG-0005**

Official name: Mercell Holding ASA

Registration number: 980921565

Postal address: Askekroken 11

Town: Oslo

Postcode: 0277

Country subdivision (NUTS): Oslo (NO081)

Country: Norway

Contact point: eSender

Email: [publication@mercell.com](mailto:publication@mercell.com)

Telephone: +47 21018800

Fax: +47 21018801

Internet address: <http://mercell.com/>

**Roles of this organisation:**

TED eSender

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**Notice information**

Notice identifier/version: 22ab0ca8-6591-431f-90f9-5c5002997e03 - 01

Form type: Result

Notice type: Contract or concession award notice – standard regime

Notice subtype: 29

Notice dispatch date: 18/06/2026 08:52:21 (UTC+00:00) Western European Time, GMT

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Languages in which this notice is officially available: English

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