

**Germany-Geesthacht: Diffraction apparatus**  
**OJ S 194/2022 07/10/2022**  
**Contract award notice**  
**Supplies**

**Legal Basis:**

Directive 2014/24/EU

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**Section I: Contracting authority**

**I.1. Name and addresses**

Official name: Helmholtz-Zentrum hereon GmbH

Postal address: Max-Planck-Straße 1

Town: Geesthacht

NUTS code: DEF06 Herzogtum Lauenburg

Postal code: 21502

Country: Germany

Contact person: Vergabestelle

E-mail: [einkauf@hereon.de](mailto:einkauf@hereon.de)

Telephone: +49 4152870

Fax: +49 415287-1750

**Internet address(es):**

Main address: <https://www.hereon.de>

**I.4. Type of the contracting authority**

Other type: non-profit making research institute with limited liability

**I.5. Main activity**

Other activity: scientific spectrum: high-performance materials, processes and environmentally friendly technologies for mobility, new energy systems and biomaterials

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**Section II: Object**

**II.1. Scope of the procurement**

**II.1.1. Title**

1 Neutron Optics Assembly (NOA) for BEER / ESS: bi-spectral switch assembly (GSW)

**II.1.2. Main CPV code**

38530000 Diffraction apparatus

**II.1.3. Type of contract**

Supplies

**II.1.4. Short description**

1 Neutron Optics Assembly (NOA) for BEER / ESS : bi-spectral switch assembly (GSW)  
The European Spallation Source (ESS) ERIC (European Research Infrastructure Consortium) as joint European project is a large scale, multinational research facility being built in Lund, Sweden, with a data management and software centre in Copenhagen, Denmark.  
The European Commission has, by decision (EU) 2015/1478 of 19 August 2015, established ESS as responsible for constructing, operating, developing and decommissioning the Facility.

The Swedish and Danish Governments have agreed to host ESS with Sweden as the host member state in accordance with Regulation (EC) No 723/2009.

The facility will be a world-leading centre for materials research and life sciences using neutrons and will host the world's most powerful neutron source.

BEER is a time-of-flight engineering diffractometer being built at the ESS.

BEER is intended to enable studies of condensed matter by observing the scattering of thermal or cold neutrons by a specimen.

The unique feature of BEER will be that a large number of short pulses are extracted from the long pulse of the ESS, which is unique after its completion, resulting in significantly higher neutron flux at the sample and thus higher intensity and broader resolution range while providing comprehensive detector coverage.

The Neutron Optical Assemblies (NOA) make part of the beam transport and conditioning system:

The NOA in the common ESS bunker are responsible for the efficient extraction of the neutrons from the cold and thermal ESS moderators as well as their efficient transport through the common ESS bunker.

The neutron optical assemblies shall be installed inside the bunker and the bunker wall, respectively.

In this context Hereon is issuing a tender for

1 pc. neutron optics assembly (NOA): bi-spectral switch (GSW)

The Scope of Work includes all necessary tasks and deliverables for the operation of the NOA as defined in the requirement specification:

I. Preliminary Design

II. Design

III. Production and assembly

IV. Factory acceptance tests (FAT)

V. Delivery to ESS storage facility

VI. Installation and alignment within the common ESS bunker

VII. Site acceptance test (SAT) of the complete systems at ESS

VIII. Documentation in electronic and paper copy, including quality assurance documentation

#### **II.1.6. Information about lots**

This contract is divided into lots: no

#### **II.1.7. Total value of the procurement**

Value excluding VAT: 172 900,00 EUR

### **II.2. Description**

#### **II.2.2. Additional CPV code(s)**

38000000 Laboratory, optical and precision equipments (excl. glasses)

#### **II.2.3. Place of performance**

NUTS code: SE224 Skåne län

Main site or place of performance: ESS - European Spallation Source Transportgatan 5 F03 / Gate E 22484 SWE - Lund (Sweden)

#### **II.2.4. Description of the procurement**

The GSW neutron optics consists of a stack of about 150 - 180 (exact number depends on the final design of the stack) Si wafers with coating of  $m=3$ . The neutron optics shall be moved in and out of the neutron beam by a translational stage. A rotation stage shall allow to position the stack relative to the optical axis. The complete system should be placed in a vacuum vessel which provides sufficient shielding for the assembly.

Minimum dimension of the stack of the Si wafers:

Width (mm) 24.0 x Height (mm) 65.00 x Length (mm) 13.10 - 15.5

Substrate float zone Si-wafers: specific resistivity :  $\approx 5000 \text{ } \Omega \cdot \text{cm}$

Accuracy of miscut of each single Si-wafer in the Si-wafer stack with respect to the (001)-plane:  $\approx 0.5 \text{ Grad}$

Each single Si-wafer thickness 130 - 200  $\mu\text{m}$  (linked to wafer length: length/thickness = 100)

Out-of-plane Si-wafer roughness  $\approx 3 \text{ \AA rms}$

The out-of-plane ( $=x$ ) waviness of each single Si-wafer  $\approx 0.0002 \text{ rad rms}$

Parallelism: maximum angle between the out-of-plane wafer surfaces of each single Si-wafer (averaged over the whole surface).  $\approx 0.0002 \text{ rad}$

Entrance and exit edge roughness of each single Si-wafer  $\approx 1 \mu\text{m rms}$

Tolerance of positioning of the wafer edges at the entrance and exit side of the Bi-spectral switch from the reference plane in the distance of the outer most wafer edge, oriented parallel to the entrance and exit side.  $\approx 100 \mu\text{m}$

The system interface points (SIP) between the Contractor's, ESS's and Hereon's responsibilities are described in the requirement specification.

Further GSW and project related requirements for this tender regarding (for example, but not limited to:)

- Remuneration
- Declaration of Conformity
- Warranty Period
- Communication during Tender Process  
(Alternative solutions, Tender Presentation, Offer technical Report)
- Product (f.e. General Information, Installation Context, System Interfaces Points, Definitions, Functional Requirements, Allowed Materials, Operation Requirements, Integration, Specific Requirements, Acceptance Tests, Technical Documentation)
- Project Management
- Overview of Project Phases
- Quality Assurance and
- Product Documentation
- Contractual Agreements between Hereon and Subcontractor

are specified in the enclosed documents

"2000084509.1 Agreement Subcontractor" and its Annexes

"2000084509.1 Annex 1" (ESS Standards)

"2000084509.1 Annex 2" (Specification)

"2000084509.1 Annex 3" (Form Monthly Report)

Hereon intends to negotiate with the tenderers the initial and all subsequent tenders submitted, except for the final tenders.

The tenderers have no right to negotiation, Hereon herewith reserves the possibility of awarding the contract on the basis of the initial tenders without negotiation.

### **II.2.5. Award criteria**

Quality criterion - Name: Quality / Weighting: 30

Quality criterion - Name: Payment Terms / Weighting: 8

Price - Weighting: 62.00

### **II.2.11. Information about options**

Options: yes

Description of options:

Pursuant to sec. 14 para. 4 no. 5 and 9 VgV (Procurement Ordinance - Vergabeverordnung), the right is reserved to award the repetition of similar services and/or deliveries corresponding to the basic project in a negotiated procedure without a competitive tender under the same conditions as the basic contract. Further information on the option of hourly paid work is contained in the procurement documents and the contract.

### **II.2.13. Information about European Union funds**

The procurement is related to a project and/or programme financed by European Union funds:  
no

### **II.2.14. Additional information**

## **Section IV: Procedure**

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### **IV.1. Description**

#### **IV.1.1. Type of procedure**

Award of a contract without prior publication of a call for competition in the Official Journal of the European Union in the cases listed below

- No tenders or no suitable tenders/requests to participate in response to open procedure

Explanation:

Verhandlungsverfahren im Anschluss an ein Offenes Verfahren VgV (inkl. Bekanntmachung), das mangels zuschlagsfähigem Angebot aufgehoben werden musste.

#### **IV.1.3. Information about a framework agreement or a dynamic purchasing system**

#### **IV.1.8. Information about the Government Procurement Agreement (GPA)**

The procurement is covered by the Government Procurement Agreement: yes

### **IV.2. Administrative information**

#### **IV.2.1. Previous publication concerning this procedure**

Notice number in the OJ S: [2022/S 051-132314](#)

#### **IV.2.8. Information about termination of dynamic purchasing system**

#### **IV.2.9. Information about termination of call for competition in the form of a prior information notice**

## **Section V: Award of contract**

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**Title:**

Auftragsvergabe Mirrotron Ltd.

A contract/lot is awarded: yes

## **V.2. Award of contract**

### **V.2.1. Date of conclusion of the contract**

19/09/2022

### **V.2.2. Information about tenders**

Number of tenders received: 1

Number of tenders received from SMEs: 1

Number of tenders received from tenderers from other EU Member States: 1

Number of tenders received by electronic means: 1

The contract has been awarded to a group of economic operators: no

### **V.2.3. Name and address of the contractor**

Official name: Mirrotron Ltd.

Postal address: Konkoly-Thege Miklós út 29-33

Town: Budapest

NUTS code: HU11 Budapest

Postal code: 1121

Country: Hungary

E-mail: [neutron@mirrotron.hu](mailto:neutron@mirrotron.hu)

Telephone: +36 13922642

Fax: +36 13922282

The contractor is an SME: yes

### **V.2.4. Information on value of the contract/lot**

Total value of the contract/lot: 172 900,00 EUR

### **V.2.5. Information about subcontracting**

## **Section VI: Complementary information**

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### **VI.3. Additional information**

Bekanntmachungs-ID: CXU1YYDYGG9

### **VI.4. Procedures for review**

#### **VI.4.1. Review body**

Official name: Vergabekammer des Bundes beim Bundeskartellamt

Postal address: Villemomblerstraße76

Town: Bonn

Postal code: 53113

Country: Germany

E-mail: [vk@bundeskartellamt.bund.de](mailto:vk@bundeskartellamt.bund.de)

Telephone: +49 2289499-0

Fax: +49 2289499-163

#### **VI.4.3. Review procedure**

Precise information on deadline(s) for review procedures:

Precise information on the time limits for lodging appeals:

- Section 134 (2) of the GWB - information and waiting period obligation: a contract may not be concluded until 15 calendar days after the information pursuant to Section 134 (1) of the GWB

has been sent. If the information is sent electronically or by fax, the period is reduced to 10 calendar days. The period shall commence on the day following the dispatch of the information by the contracting entity; the day of receipt by the tenderer and candidate concerned shall be irrelevant.

- The award procedure is subject to the provisions on review proceedings before the Public Procurement Tribunal (Section 155 et seq. GWB). Pursuant to Section 160 (3) GWB, the application is inadmissible to the extent that:

1. the applicant has recognized the asserted infringement of procurement regulations prior to filing the application for review and has not objected to it vis-à-vis the contracting entity within a period of 10 calendar days; the expiry of the period pursuant to Section 134 para. 2 GWB shall remain unaffected,
2. violations of procurement regulations which are identifiable on the basis of the notice are not notified to the contracting authority at the latest by the expiry of the period for application or submission of bids specified in the notice,
3. violations of procurement regulations which are only recognizable in the award documents are not notified to the contracting entity at the latest by the expiry of the period for application or submission of bids,
4. more than 15 calendar days have elapsed since receipt of the contracting entity's notification that it does not intend to remedy a complaint. The preceding sentence shall not apply in the case of an application for a declaratory decision on the invalidity of the contract pursuant to Section 135 para. 1 no. 2 GWB. § Section 134 (1) sentence 2 GWB shall remain unaffected.

#### **VI.5. Date of dispatch of this notice**

04/10/2022