

185586-2026 - Competition

Germany – Industrial diamonds – High Pressure High Temperature (HPHT) Diamonds

OJ S 54/2026 18/03/2026

Contract or concession notice – standard regime

Supplies

1. Buyer

1.1. Buyer

Official name: European X-Ray Free-Electron Laser Facility GmbH

Email: tender@xfel.eu

Legal type of the buyer: Organisation awarding a contract subsidised by a contracting authority

Activity of the contracting authority: Education

2. Procedure

2.1. Procedure

Title: High Pressure High Temperature (HPHT) Diamonds

Description: This tender is adopted with Innovation Partnership Procedure which is a specific procurement method established under EU public procurement law (Directive 2014/24/EU), allowing public contracting authorities/companies to procure R&D services and the subsequent purchase of resulting innovative products, services or works in one integrated process. It is particularly useful when products or solutions do not exist on the market. The high-quality HPHT diamonds themselves are not inherently innovative. However, due to the current political situation, there is a lack of an established supply chain within Europe. The innovation in this case lies not in the material, but in its use: EuXFEL is pursuing the development of a prototype Diamond Double-Crystal Monochromator (Diamond DCM) using HPHT diamond, which provides significantly better thermal conductivity and quality than available CVD diamonds. Although silicon-based DCMs are already commercially available, diamond-based equivalents have not yet reached the market. Single Procedure: Combines R&D and subsequent commercial procurement, avoiding the need for a separate tender once the innovation is developed.

Procedure identifier: 881cfa1c-db41-47e9-983f-f323f2f52d4c

Type of procedure: Innovation partnership

2.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 14522200 Industrial diamonds

2.1.2. Place of performance

Country subdivision (NUTS): Pinneberg (DEF09)

Country: Germany

2.1.4. General information

Legal basis:

Directive 2014/24/EU

vgv -

2.1.6. Grounds for exclusion

5. Lot

5.1. Lot: LOT-0001

Title: High Pressure High Temperature Diamonds

Description: Phase 0 : Call for Competition -Request to participate, stating their understanding of the technical specifications and the expectation from EuXFEL, the expected results, milestone achievements, and the requested achievable timeframe for each phase, as well as agree the overall production plan and estimated timeline at the final phase 4, details as stated in the tender documents (Technical Specification). -Bidders must provide a concise description confirming compliance with the technical specifications including the tolerances, requested project timeline and reporting period/time frame outlined in this document. If any required parameters cannot be met, the contractor must explicitly state so in the offer, along with details of the achievable parameters. -Initial offer must be submitted based on the requirements stated on the "High Pressure High Temperature (HPHT) Diamonds" specification, under 1.2 "Diamond plates specification"- "General Geometrical and Material Specifications", as informational purpose only -Complete & Sign Tender Forms

Phase 1: Initial Development and Screening In this phase, maximum five (5) bidders will be selected from Phase 0 must each deliver one (1) diamond plate together with technical report in accordance with the requirements defined below. The delivered plate shall be characterized and submitted for evaluation by EuXFEL. EuXFEL reserves the right to shortlist fewer than five (5) bidders for this stage if one or more bidders do not meet the selection criteria for this phase.

Phase 2: Process Optimization The objective of this phase is the optimization of the diamond growth and processing process to achieve a larger defect-free area while minimizing lattice strain. In this phase, the suppliers selected following Phase 1 must each deliver two (2) diamond plates with (100) crystallographic orientation with technical report on the requested timeframe in accordance with the requirements defined below. The delivered plates shall be characterized and submitted for evaluation by EuXFEL.

Phase 3: Advanced Development for (110) Orientation The objective of this phase is the development and delivery of a high-quality diamond plate with (110) crystallographic orientation, which represents a more technically demanding configuration compared to the (100) orientation. In this phase, the suppliers selected following Phase 2 shall each deliver one (1) diamond plate in accordance with the requirements defined below. The delivered plate shall be characterized and submitted for evaluation by EuXFEL. If the analysis results of the 3rd crystal plate from any 2 or more than 2 bidders are identical. EuXFEL will request the bidders to submit their offers of the 4th plate of crystals with the final agreed specification at the end of Phase 3 for comparison, instead of at the beginning of Phase 4.

Phase 4: Final Supply and Integration of the plates to the monochromator Delivery of two (2) diamond plates (100) oriented and two (2) diamond plates (110) oriented. Only 1 supplier will be selected on Phase 4. The selected bidder must submit the final offer at this phase. The price quoted on the final offer must be in Euro fix, not subject to escalation or variation. The price must include design, probing & testing, classification if applicable, technical report, delivery to the premises of EuXFEL and include all labeling, packaging and insurance as well as factory acceptance tests (FAT), but exclude Value Added Tax (VAT) as well as customs duties. By submitting the final offer, the terms and conditions of this innovation partnership procedure are accepted.

Internal identifier: LOT-0001 XRO-CT32310

5.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 14522200 Industrial diamonds

5.1.2. Place of performance

Country subdivision (NUTS): Pinneberg (DEF09)

Country: Germany

Additional information: None

5.1.3. Estimated duration

Other duration: Unknown

5.1.6. General information

Reserved participation:

Participation is not reserved.

Procurement Project not financed with EU Funds.

The procurement is covered by the Government Procurement Agreement (GPA): no

This procurement is also suitable for small and medium-sized enterprises (SMEs): yes

Additional information: #Besonders auch geeignet für:freelance#, #Besonders auch geeignet für:startup#, #Besonders auch geeignet für:other-sme#, #Besonders auch geeignet für:selbst#

5.1.7. Strategic procurement

Aim of strategic procurement: Innovative purchase

Description: This tender is adopted with Innovation Partnership Procedure which is a specific procurement method established under EU public procurement law (Directive 2014/24/EU), allowing public contracting authorities/companies to procure R&D services and the subsequent purchase of resulting innovative products, services or works in one integrated process. It is particularly useful when products or solutions do not exist on the market. This tender includes Phase 0 to Phase 4. The high-quality HPHT diamonds themselves are not inherently innovative. However, due to the current political situation, there is a lack of an established supply chain within Europe. The innovation in this case lies not in the material, but in its use: EuXFEL is pursuing the development of a prototype Artificial Channel-Cut Monochromator (ACCM) using HPHT diamond, which provides significantly better thermal conductivity and quality than available CVD diamonds. Although silicon-based ACCMs are already commercially available, diamond-based equivalents have not yet reached the market. Single Procedure: Combines R&D and subsequent commercial procurement, avoiding the need for a separate tender once the innovation is developed.

Innovation procurement: The procured works, supplies or services involve research and development activities.

5.1.9. Selection criteria

Sources of selection criteria: Procurement Document

Information about the second stage of a two-stage procedure:

Minimum number of candidates to be invited for the second stage of the procedure: 3

Maximum number of candidates to be invited for the second stage of the procedure: 5

The procedure will take place in successive stages. At each stage, some participants may be eliminated

5.1.10. Award criteria

Criterion:

Type: Quality

Description: Selection criteria for Phase 0: Phase 0 - Selection suitability criteria for invitation for next Phase (Phase 1): A total of 100 points can be achieved when evaluating references.

References (3 References – experience as a company in projects of similar characteristics

within the last ten years stated on the Tender Forms) are evaluated by comparing applicants with each other based on the following scale/grading system. The maximum number of points is multiplied by the respective weighting factor (percentage)– multiplied by the respective weighting factor (percentage). - 100% = very good: The applicant meets the requirements for the suitability criterion to the highest degree, - 80% = good: Applicant meets the requirements for the suitability criterion to the highest degree, - 60% = fully satisfactory: The applicant meets the suitability criteria to a high degree to a high degree, - 40% = satisfactory: Applicant meets the requirements for the suitability criterion to a sufficient degree, - 20% = adequate: Applicant meets the requirements for the eligibility criterion to a barely sufficient degree. In the range between 0% and 100%, intermediate values can be formed to take into account a tendency toward the higher grade level (10%, 30%, 50%, 70%, 90%), which be assigned to the respective grade level with the straight percentage below it. An assessment of an aptitude criterion (performance or expertise) with 10% would correspond to a complete failure to meet the respective suitability criterion, which would result in the exclusion of the application for participation (knockout criterion). The above criteria are suitability criteria, not award criteria. EuXFEL aims to select maximum 5 bidders/applicants in Phase 1. If no 3 bidders/applicants are similarly qualified in terms of meeting the minimum requirements or total points, only those applicants who are sufficiently suitable will be included. If several applicants/bidders achieve the same total score and the number of applicants/bidders exceeds the planned number to be invited to the next phase, EuXFEL reserves the right to select among the remaining applicants with the same score by drawing lots. These criteria will be used to determine which applicants will be invited to the next phase of the process.

5.1.11. Procurement documents

Languages in which the procurement documents are officially available: English

Address of the procurement documents: <https://www.subreport.de/E29531557>

5.1.12. Terms of procurement

Terms of submission:

Electronic submission: Required

Address for submission: <https://www.subreport.de/E29531557>

Languages in which tenders or requests to participate may be submitted: German

Electronic catalogue: Not allowed

Variants: Not allowed

Tenderers may submit more than one tender: Not allowed

Deadline for receipt of requests to participate: 20/04/2026 12:00:00 (UTC+02:00) Eastern European Time, Central European Summer Time

Information that can be supplemented after the submission deadline:

At the discretion of the buyer, all missing tenderer-related documents may be submitted later.

Additional information: None

Terms of contract:

The execution of the contract must be performed within the framework of sheltered employment programmes: No

Electronic invoicing: Allowed

Electronic ordering will be used: yes

Electronic payment will be used: yes

5.1.15. Techniques

Framework agreement:

No framework agreement

Information about the dynamic purchasing system:

No dynamic purchase system
Electronic auction: no

5.1.16. Further information, mediation and review

Review organisation: Vergabekammer des Bundes beim Bundeskartellamt Registration number: +49 022894990 Country subdivision (NUTS): Bonn, Kreisfreie Stadt (DEA22) Country: Germany Roles of this organisation: Review organisation Mediation organisation Information about review deadlines: The legal regulations applied Organisation providing more information on the review procedures: European X-Ray Free-Electron Laser Facility GmbH

8. Organisations

8.1. ORG-0001

Official name: European X-Ray Free-Electron Laser Facility GmbH
Registration number: DE815117472
Postal address: Holzkoppel 4
Town: Schenefeld
Postcode: 22869
Country subdivision (NUTS): Pinneberg (DEF09)
Country: Germany
Email: tender@xfel.eu
Telephone: +49 (0)40 8998-6768
Internet address: <https://www.xfel.eu>

Roles of this organisation:

Buyer
Organisation providing more information on the review procedures

8.1. ORG-0002

Official name: Vergabekammer des Bundes beim Bundeskartellamt Registration number: +49 022894990 Country subdivision (NUTS): Bonn, Kreisfreie Stadt (DEA22) Country: Germany Roles of this organisation: Review organisation Mediation organisation Registration number: Telephone: +49 22894990
Town: Bonn
Postcode: 53113
Country subdivision (NUTS): Bonn, Kreisfreie Stadt (DEA22)
Country: Germany
Email: vk@bundeskartellamt.bund.de
Telephone: +49 22894990

Roles of this organisation:

Review organisation

8.1. ORG-0003

Official name: Datenservice Öffentlicher Einkauf (in Verantwortung des Beschaffungsamts des BMI)
Registration number: 0204:994-DOEVD-83
Town: Bonn
Postcode: 53119
Country subdivision (NUTS): Bonn, Kreisfreie Stadt (DEA22)
Country: Germany
Email: noreply.esender_hub@bescha.bund.de

Telephone: +49228996100
Roles of this organisation:
TED eSender

Notice information

Notice identifier/version: 0dbe963b-28bf-4873-aac4-a10503b6e24b - 01
Form type: Competition
Notice type: Contract or concession notice – standard regime
Notice subtype: 16
Notice dispatch date: 16/03/2026 09:08:40 (UTC+01:00) Central European Time, Western European Summer Time
Languages in which this notice is officially available: German
Notice publication number: 185586-2026
OJ S issue number: 54/2026
Publication date: 18/03/2026