

Finland – Scanning electron microscopes – Zeiss GeminiSEM 460 with Volutome**OJ S 196/2024 08/10/2024****Voluntary ex-ante transparency notice****Supplies**

1. Buyer**1.1. Buyer**

Official name: University of Helsinki

Email: hankinnat@helsinki.fi

Legal type of the buyer: Body governed by public law

2. Procedure**2.1. Procedure**

Title: Zeiss GeminiSEM 460 with Volutome

Description: Electron Microscopy Unit (EMBI) is acquiring an automated serial block face scanning electron microscope (SBF-SEM) suitable especially for large volumes and broad variety of specimen types. The new system will replace the aged system, which has been the most used instrument of the unit, used in numerous high-profile projects and attracted several international projects. Moreover, due to fast developments in the field, new instruments have higher sensitivity and provide better resolution than earlier systems, allowing imaging of new types of samples. EMBI is a multi-user environment and, thus, the two main criteria for selection of the instrument are (1) image quality and (2) suitability for wide range of different tissue and cell types with different size and imaging requirements.

Procedure identifier: 2ea330bf-3cea-43d0-b789-2d26b4f88c3b

Internal identifier: 529956

Type of procedure: Negotiated without prior call for competition

2.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 38511100 Scanning electron microscopes

2.1.2. Place of performance

Country: Finland

Anywhere in the given country

2.1.4. General information

Legal basis:

Directive 2014/24/EU

5. Lot**5.1. Lot: LOT-0000**

Title: Zeiss GeminiSEM 460 with Volutome

Description: Electron Microscopy Unit (EMBI) is acquiring an automated serial block face scanning electron microscope (SBF-SEM) suitable especially for large volumes and broad variety of specimen types. The new system will replace the aged system, which has been the

most used instrument of the unit, used in numerous high-profile projects and attracted several international projects. Moreover, due to fast developments in the field, new instruments have higher sensitivity and provide better resolution than earlier systems, allowing imaging of new types of samples. EMBI is a multi-user environment and, thus, the two main criteria for selection of the instrument are (1) image quality and (2) suitability for wide range of different tissue and cell types with different size and imaging requirements.

Internal identifier: 764339

5.1.1. Purpose

Main nature of the contract: Supplies

Main classification (cpv): 38511100 Scanning electron microscopes

5.1.2. Place of performance

Country: Finland

Anywhere in the given country

5.1.3. Estimated duration

Other duration: Unlimited

5.1.6. General information

Procurement Project not financed with EU Funds.

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

5.1.10. Award criteria

Criterion:

Type: Price

Description: Price for direct procurement of the device

Order of importance: 1

Justification for not indicating the weighting of the award criteria: Direct procurement

5.1.16. Further information, mediation and review

Review organisation: Markkinaoikeus

TED eSender: Hansel Oy (Hilma)

6. Results

Value of all contracts awarded in this notice: 772 900,00 EUR

Direct award:

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: (1) After thorough testing of the available systems using similarly prepared tissue and cell monolayer samples and systematic comparison of the results, Zeiss GeminiSEM 460 with Volutome was found to provide superior imaging quality on both test samples in terms of signal-to-noise in both low and high vacuum modes and higher sharpness especially on long runs of the tissue sample. Charging (electron beam interacts with the nonconductive resin in which the sample is embedded) is one of the main limiting factors in SBF-SEM imaging, and the superior image quality in the test runs is due to focal charge compensation system (FCC), which is a patented solution of Zeiss. FCC proved to be superior in reducing charging artefacts while still providing better signal-to-noise ratio in our samples in

comparison to low vacuum mode imaging, which is the only solution provided by other vendors to reduce charging. Zeiss Volutome is also the only system that has a dedicated automated retractable detector for SBF-SEM imaging operating both at high and low vacuum modes, which enables uninterrupted imaging during runs requiring switching between high and low vacuum modes on non-uniform samples. (2) Zeiss GeminiSEM 460 with Volutome has unique features to address various sample-specific needs that are often encountered in EMBI: - 32k x 24 k image size with 16-bit mode, which provides flexibility over 8-bit mode to correct image contrast during post-processing in situations when imaging conditions are changing. At the same time, contrast and brightness adjustments do not have to be very precise during the run providing more flexibility for the experiment design. This factor is important especially in larger samples that may have staining intensity gradient. - oscillating knife, which improves sectioning of challenging samples, such as soft (as a consequence of poor polymerization due to high humidity in summer) or non-homogeneous blocks (comprising of dense and loose tissue with lots of empty resin in-between). - sample height of 1 mm (in extreme situations up to 1.2 mm), which allows imaging of large or long tissue samples such as plant roots and brain pieces. There's no other supplier in the market that can deliver a SBF-SEM system with the required image quality due to focal charge compensation system (FCC) and 32k x 24 k image size with 16-bit mode which are features that can be only found in Zeiss GeminiSEM 460 with Volutome.

6.1. Result lot Identifier: LOT-0000

6.1.2. Information about winners

Winner:

Official name: Carl Zeiss Oy

Tender:

Tender identifier: Tender Carl Zeiss Oy

Identifier of lot or group of lots: LOT-0000

The tender was ranked: no

Contract information:

Identifier of the contract: Carl Zeiss Oy

Date on which the winner was chosen: 26/09/2024

8. Organisations

8.1. ORG-0001

Official name: University of Helsinki

Registration number: 0313471-7

Postal address: Fabianinkatu 33

Town: Helsinki

Postcode: 00100

Country subdivision (NUTS): Helsinki-Uusimaa (F11B1)

Country: Finland

Contact point: Hankinnat

Email: hankinnat@helsinki.fi

Telephone: +358 294150719

Internet address: <https://www.helsinki.fi/en>

Roles of this organisation:

Buyer

8.1. ORG-0002

Official name: Markkinaoikeus
Registration number: 3006157-6
Postal address: Radanrakentajantie 5
Town: Helsinki
Postcode: 00520
Country subdivision (NUTS): Helsinki-Uusimaa (F11B1)
Country: Finland
Email: markkinaoikeus@oikeus.fi
Telephone: +358 295643300
Internet address: <http://www.oikeus.fi/markkinaoikeus>

Roles of this organisation:

Review organisation

8.1. ORG-0003

Official name: Carl Zeiss Oy
Size of the economic operator: Micro, small, or medium
Registration number: 2154026-8
Town: Vantaa
Postcode: 01510
Country subdivision (NUTS): Helsinki-Uusimaa (F11B1)
Country: Finland
Email: toni.montonen@zeiss.com
Telephone: +358406670747

Roles of this organisation:

Tenderer

Winner of these lots: LOT-0000

8.1. ORG-0004

Official name: Hansel Oy (Hilma)
Registration number: FI09880841
Postal address: Mannerheiminaukio 1a
Town: Helsinki
Postcode: 00100
Country subdivision (NUTS): Helsinki-Uusimaa (F11B1)
Country: Finland
Contact point: eSender
Email: tekninen@hankintailmoitukset.fi
Telephone: 029 55 636 30
Internet address: <http://hankintailmoitukset.fi>

Roles of this organisation:

TED eSender

11. Notice information

11.1. Notice information

Notice identifier/version: f426f9b9-a25f-4218-b2fe-5eee083243c6 - 01
Form type: Direct award preannouncement
Notice type: Voluntary ex-ante transparency notice

Notice subtype: 25

Notice dispatch date: 07/10/2024 07:40:02 (UTC)

Notice dispatch date (eSender): 07/10/2024 07:41:02 (UTC)

Languages in which this notice is officially available: English

11.2. Publication information

Notice publication number: 605731-2024

OJ S issue number: 196/2024

Publication date: 08/10/2024