

CONTRACT AWARD NOTICE
RESULTS OF THE PROCUREMENT PROCEDURE
Supplies

Directive 2014/24/EU

SECTION I: CONTRACTING AUTHORITY

I.1) NAME AND ADDRESSES

Official name:

Universiteit Leiden

National ID:

151539485

Postal address:

Postbus 905

Town:

Leiden

NUTS code:

NL

Postal code:

2300 AX

Country:

NL

Contact person:

Govert Schipperheijn

Telephone:

+31 715273304

E-mail:

inkoop@ufb.leidenuniv.nl

Fax:

-

Internet address(es)

Main address:

<https://www.universiteitleiden.nl/>

Address of the buyer profile:

<https://platform.negometrix.com/PublishedTenders.aspx?tenderid=187159>

I.2) JOINT PROCUREMENT

-

I.4) TYPE OF THE CONTRACTING AUTHORITY

Body governed by public law

I.5) MAIN ACTIVITY

Other activity: Scientific research and higher education

SECTION II: OBJECT

II.1) SCOPE OF THE PROCUREMENT

II.1.1) Title

METIS Immersed Grating

Reference number: -

II.1.2) CPV code(s)

Main code:

38630000 - Astronomische en optische instrumenten

Supplementary code:

-

II.1.3) Type of contract

Supplies

II.1.4) Short description

The Mid-infrared ELT Imager and Spectrograph (METIS) is one of only three scientific astronomical instruments on ESO's (European Southern Observatory) 39 meter Extremely Large Telescope (ELT). A key science driver for METIS is the characterization of exoplanetary atmospheres, for which a spectrograph with high resolution ($R \sim 100,000$) is essential.

The immersed grating is a key optical component in the L/M-band high resolution Spectrograph (LMS), which is one of the science subsystems of METIS. The immersed grating is a monolithic optical device, that is a combination of a prism and an optical grating. With respect to a classical grating, it ensures a drastic reduction in the instrument's size without affecting its performance.

II.1.6) Information about lots

This contract is divided into lots: no

II.1.7) Total value of the procurement (excluding VAT)

Value: 350 000,00

Currency: EUR

II.2) DESCRIPTION

II.2.1) Title

-

Lot No: -

II.2.2) Additional CPV code(s)

-

II.2.3) Place of performance

NUTS code:

NL NEDERLAND

Main site or place of performance:

Dwingeloo

II.2.4) Description of the procurement:

(nature and quantity of works, supplies or services or indication of needs and requirements)

METIS Immersed Grating

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II.2.5) Award criteria

Price

Weighting: -

II.2.11) Information about options

Options: no

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

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

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

-

IV.1.6) Information about electronic auction

-

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: -

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

Contract No: 1

Lot No: 1

Title: METIS Immersed Grating

A contract/lot is awarded: yes

V.2) AWARD OF CONTRACT

V.2.1) Date of conclusion of the contract:

23/06/2021

V.2.2) Information about tenders

Number of tenders received: 1

Number of tenders received from SMEs: 0

Number of tenders received from tenderers from other EU Member States: 0

Number of tenders received from tenderers from non-EU Member States: 0

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:

Canon Europe BV

National ID:

-

Postal address:

-

Town:

Amstelveen

NUTS code:

NL

Postal code:

-

Country:

NL

Telephone:

-

E-mail:

-

Fax:

-

Internet address:

-

The contractor is an SME: no

V.2.4) Information on value of the contract/lot (excluding VAT)

Initial estimated total value of the contract/lot:

-

Total value of the contract/lot: 350 000,00

Currency: EUR

V.2.5) Information about subcontracting

-

SECTION VI: COMPLEMENTARY INFORMATION

VI.3) ADDITIONAL INFORMATION

-

VI.4) PROCEDURES FOR REVIEW

VI.4.1) Review body

Official name:

Rechtbank Den Haag

Postal address:

-

Town:

Den Haag

Postal code:

-

Country:

NL

E-mail:

-

Telephone:

-

Internet address:

-

Fax:

-

VI.4.2) Body responsible for mediation procedures

-

VI.4.3) Review procedure

Precise information on deadline(s) for review procedures:

Within 30 days after publication.

VI.4.4) Service from which information about the review procedure may be obtained

-

VI.5) DATE OF DISPATCH OF THIS NOTICE

08/10/2021

ANNEX D1 – GENERAL PROCUREMENT: JUSTIFICATION FOR THE AWARD OF THE CONTRACT WITHOUT PRIOR PUBLICATION OF A CALL FOR COMPETITION IN THE OFFICIAL JOURNAL OF THE EUROPEAN UNION

Directive 2014/24/EU

D1.1) Justification for the choice of the negotiated procedure without prior publication of a call for competition in accordance with Article 32 of Directive 2014/24/EU

The works, supplies or services can be provided only by a particular economic operator for the following reason:

- absence of competition for technical reasons

D1.3) Explanation

Please explain in a clear and comprehensive manner why the award of the contract without prior publication in the Official Journal of the European Union is lawful, by stating the relevant facts and, as appropriate, the conclusions of law in accordance with the directive: The Mid-infrared ELT Imager and Spectrograph (METIS) is one of only three scientific astronomical instruments on ESO's (European Southern Observatory) 39 meter Extremely Large Telescope (ELT). A key science driver for METIS is the characterization of exoplanetary atmospheres, for which a spectrograph with high resolution ($R \sim 100,000$) is essential.

The immersed grating is a key optical component in the L/M-band high resolution Spectrograph (LMS), which is one of the science subsystems of METIS. The immersed grating is a monolithic optical device, that is a combination of a prism and an optical grating. With respect to a classical grating, it ensures a drastic reduction in the instrument's size without affecting its performance.

However, its required performance leads to very demanding requirement specifications: <100 nm RMS transmitted Wave Front Error (WFE) after double pass, and $>70\%$ peak throughput in all orders within the $2.9\text{--}5.3\text{ }\mu\text{m}$ wavelength range over the pupil. The grating has a period

of 18.2 μm , a sawtooth groove profile with 89.6 degrees apex angle and a grating area of 150mm x 60mm. Optical performance requires a reflective gold coating on the grating side and anti-reflective coatings on the transmission side. The grating will operate in a cryogenic (70 Kelvin) vacuum environment over a lifetime of at least 10+ years. No such device of this size and accuracy has ever been used in an astronomical instrument, and it cannot be obtained "off the shelf" anywhere in the world.

In order to prepare for the design and construction of METIS, the Dutch science foundation (NWO) has previously financed a significant amount for collaboration between Dutch academia (NOVA/Leiden University), research institutes (SRON, TNO) and industry (Philips) to construct a demonstration model of the 'immersed grating' for METIS. The utilized technology was developed in producing similar but much smaller immersed gratings in 2006 for TROPOMI, an environmental satellite of ESA. The successful development started in 2009, took more than two years, and was instrumental in securing METIS as a first-light instrument on the ELT. An SPIE paper described the development and manufacturing was published on 13 September 2012 titled "DEVELOPMENT OF SILICON IMMERSSED GRATING FOR METIS ON E-ELT". In 2018, when the actual optical element needed to start production, it was determined that the manufacturing process for the final METIS immersed grating was going to be very costly with a 1.5 year lead time and at risk of meeting full performance requirements. At the time, there were no other options for this size grating in the world.

We have performed a survey across potential manufacturers, and even started a collaborative effort with SRON, TNO, and Philips. Unfortunately, none of these comprehensive efforts have led to a grating, with the required specifications – with one exception: Canon, Japan developed an innovative technical solution to produce an immersed grating the size needed for METIS

Based on our previous extensive efforts and Canon's acquired experience and innovative technical solutions for this device, we are convinced that Canon is uniquely qualified to perform this work for METIS in order to meet the above described requirements well within cost and schedule constraints.