

NL-Zwolle: Astronomical and optical instruments

OJ S 64/2013 30/03/2013

Contract notice

Supplies

Directive 2004/18/EC

Section I: Contracting authority

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**I.1. Name and addresses**

Official name: The Netherlands Research School for Astronomy, NOVA, represented by het NIC BV

Postal address: Dr. Stolteweg 60-66, PO Box 670

Town: Zwolle

Country: Netherlands

Contact person: BU Noord

For the attention of: Mr. H.J. Schutten, Mr. R. van Weeghel or Ms. M. Broekhof

E-mail: [henk.schutten@hetnic.nl](mailto:henk.schutten@hetnic.nl) or [raymond.vweeghel@hetnic.nl](mailto:raymond.vweeghel@hetnic.nl), or [mandy.broekhof@hetnic.nl](mailto:mandy.broekhof@hetnic.nl)

Telephone: +31 384563210

Fax: +31 384563250

**Internet address(es):**

General address of the contracting authority: <http://www.astronomie.nl>

**Additional information can be obtained from:**

Official name: Het NIC BV

Postal address: Dr. Stolteweg 60-66

Town: Zwolle

Postal code: 8025 AZ

Country: Netherlands

Contact person: BU Noord

For the attention of: Mr. H.J. Schutten

E-mail: [henk.schutten@hetnic.nl](mailto:henk.schutten@hetnic.nl)

Telephone: +31 384563347

Fax: +31 384563250

Internet address: [www.hetnic.nl](http://www.hetnic.nl)

**Specifications and additional documents (including documents for competitive dialogue and a dynamic purchasing system) can be obtained from:**

Official name: het NIC BV

Postal address: Dr. Stolteweg 60-66

Town: Zwolle

Postal code: 8025 AZ

Country: Netherlands

For the attention of: Dhr. R. van Weeghel

E-mail: [raymond.vweeghel@hetnic.nl](mailto:raymond.vweeghel@hetnic.nl)

Telephone: +31 384563398

Fax: +31 384563437

Internet address: [www.hetnic.nl](http://www.hetnic.nl)

**Tenders or requests to participate must be submitted:** Official name: het NIC BV

Postal address: Dr. Stolteweg 60-66

Town: Zwolle  
Postal code: 8025 AZ  
Country: Netherlands  
For the attention of: Dhr. R. van Weeghel  
E-mail: [raymond.vweeghel@hetnic.nl](mailto:raymond.vweeghel@hetnic.nl)  
Telephone: +31 384563398  
Fax: +31 384563437  
Internet address: [www.hetnic.nl](http://www.hetnic.nl)

**I.2. Type of the contracting authority**

Body governed by public law

**I.3. Main activity**

Health  
Education  
Other: Frontline research

**I.4. Contract award on behalf of other contracting authorities**

The contracting authority is purchasing on behalf of other contracting authorities: no

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**Section II: Object of the contract**

**II.1. Description**

**II.1.1. Title attributed to the contract by the contracting authority**

Tender for the supply of cryogenic isolators for the band 5 receiver for the Atacama Large Millimeter Array (ALMA) Project for which no dedicated CPV code can be found.

**II.1.2. Type of contract and place of performance or delivery**

Supplies  
Purchase  
Main site or place of performance: Groningen, the Netherlands.  
NUTS code NL11 Groningen

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

The notice involves a public contract

**II.1.4. Information about framework agreement**

**II.1.5. Short description of the contract or purchase(s)**

The contracting authority is the Nederlandse Onderzoekschool voor de Astronomie, NOVA, legally represented by the University of Leiden.  
The billing address is the address of NOVA which is located in Leiden.  
The delivery address to NOVA for the purpose of this contract is:  
University of Groningen,  
C/o Kapteyn Institute, Kapteynborg  
Landleven 12 Entrance J1, Zernike Campus  
9747 AD Groningen.  
1. Nederlandse Onderzoekschool voor de Astronomie, NOVA (English name: The Netherlands Research School for Astronomy).  
NOVA, a top-research school, is a federation of the astronomical institutes at the universities of Amsterdam, Groningen, Leiden and Nijmegen, legally represented by the University of Leiden. NOVA's mission is to carry out frontline astronomical research in the Netherlands, and

to train young astronomers at the highest international level. As part of this mission, NOVA's instrumentation program aims to strengthen the technical expertise at the universities, and to develop and construct new instrumentation for world-class observatories. Development and production of the ALMA Band 5 Cartridge for the Atacama Large Millimeter Array project is an important part of this instrumentation program.

## 2. The Atacama Large Millimeter Array (ALMA).

ALMA is an instrument, which, when completed in 2013, will consist of an array of sixty-six antennas, with baselines up to 16 km located on the Chajnantor plateau in the Atacama Desert in the North of Chile, at 5.000m altitude. It will observe at wavelengths in the range 7.5-0.3 mm (40 to 950 GHz). The antennas can be moved around, in order to form arrays with different distributions of baseline lengths.

ALMA is an international astronomy facility. It is a partnership of Europe, Japan, and North America in cooperation with the Republic of Chile.

ALMA is funded in Europe by:

- The European Organisation for Astronomical Research in the Southern Hemisphere (ESO) and Spain

- In Japan by the National Institutes of Natural Sciences (NINS) in cooperation with the Academia Sinica in Taiwan

- In North America by the U.S. National Science Foundation (NSF) in cooperation with the National Research Council of Canada (NRC).

ALMA construction and operations are led on behalf of Europe by ESO, on behalf of Japan by the National Astronomical Observatory of Japan (NAOJ) and on behalf of North America by the National Radio Astronomy Observatory (NRAO), which is managed by Associated Universities, Inc. (AUI).

## 3. In the past years, NOVA has developed and produced the ALMA Band 9 receivers.

NOVA is presently producing the ALMA Band 5 receivers. This is a cryogenic heterodyne receiver offering state-of-the-art sensitivities at signal frequencies from 163-211 GHz.

A consortium of two institutes executes the work:

- The ALMA/NOVA group within the Kapteyn Institute, the Astronomy department of the University of Groningen in the Netherlands, and

- GARD group within the University of Göteborg, Sweden,

NOVA leads in the project and performs this work under contract to ESO.

The aggressive science goals, large scope, and remote location of the ALMA project, combined with the cartridges' cryogenic operating temperatures (as low as 3 K or 270°C), place high demands on the performance and reliability of the Band 5 Cartridges and their component parts.

## 4. GARD group at the Chalmers University of Technology, Gothenburg, Sweden.

The Group for Advanced Receiver Development (GARD) is a research and engineering group working on Terahertz scientific instrumentation. GARD research focuses on superconducting electronics, material science and thin-film processing. The results and experience from these fields facilitate development and building of state-of-the-art instruments used in radio astronomy and environmental science.

During 2006- 2011, under EC FP6 ALMA Enhancement Project, GARD completed development, production and tests of six Band 5 Cartridge Pre-Production Assemblies. All produced Band 5 receiver cartridges demonstrate state-of-the-art performance (the noise temperature of about 5 times quantum noise  $hf/k$ ). The first produced Band 5 receiver has been integrated with ALMA antenna s/n 01 and is on AOS since October 2011. The ALMA Band 5 covers the frequency range 163 GHz - 211 GHz. The para-H<sub>2</sub>O(313-220) line at 183 GHz lies in the middle of Band 5. It is one of a few H<sub>2</sub>O lines that can be observed from Earth (at the excellent ALMA site the transmission can approach 50% at the line peak). The GARD

group employs about twelve people

5. The European Organization for Astronomical Research in the Southern Hemisphere (ESO)  
ESO is the European Organisation for Astronomical Research in the Southern Hemisphere. Created in 1962, ESO provides state-of-the-art research facilities to European astronomers and astrophysicists and is supported by Belgium, the Czech Republic, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Preparing the future, ESO is currently engaged in design studies for an Extremely Large optical /near-infrared Telescope for Europe's astronomers (E-ELT). ESO is a member of the EIROforum, the partnership of the seven European intergovernmental research organisations that operate major research infrastructures.

See also the selection guidelines. These selection guidelines can be applied for by e-mail at Het NIC BV, BU Noord in Zwolle, the Netherlands.

#### **II.1.6. CPV code(s)**

38630000 Astronomical and optical instruments, 31700000 Electronic, electromechanical and electrotechnical supplies, 31711100 Electronic components

#### **II.1.7. Information about the Government Procurement Agreement (GPA)**

The procurement is covered by the Government Procurement Agreement: yes

#### **II.1.8. Lots**

This contract is divided into lots: no

#### **II.1.9. Information about variants**

Variants will be accepted: no

### **II.2. Scope of the procurement**

#### **II.2.1. Total quantity or scope**

The aim of the Contracting Authority of this tender procedure is to conclude in a transparent way a contract with 1 contracting party on the terms and conditions of the Contracting Authority, for the supply to NOVA of Cryogenic Isolators that shall:

- Cover the operating frequency range of 4.0 – 8.0 GHz;
  - Designed for use in a temperature range of below -260°C;
  - Be designed for use in conjunction with 50-Ω coaxial cables;
  - Be used for at least 15 years at 5000 m altitude in high vacuum at cryogenic temperatures of at least - 260° C.
  - Be produced according to a customer supplied User Requirement Specification, URS.
- Part of the project is not only delivery but also qualification of the Isolator manufacturing process and qualification of the reproducibility of the Isolators.

For further information, see selection guidelines. The selection guidelines can be applied for by e-mail, fax or written letter, at het NIC BV, BU Noord, for the attention of Mr.

Raymond van Weeghel tel +31 38 4563398, email address [raymond.vweeghel@hetnic.nl](mailto:raymond.vweeghel@hetnic.nl) or Mandy Broekhof, tel +31 38 4563371, email address [mandy.broekhof@hetnic.nl](mailto:mandy.broekhof@hetnic.nl), in Zwolle, the Netherlands.

#### **II.2.2. Information about options**

Options: no

#### **II.2.3. Information about renewals**

This contract is subject to renewal: no

## **II.3. Duration of the contract or time limit for completion**

### **Section III: Legal, economic, financial and technical information**

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#### **III.1. Conditions related to the contract**

##### **III.1.1. Deposits and guarantees required**

Not applicable.

##### **III.1.2. Main financing conditions and payment arrangements and/or reference to the relevant provisions governing them**

Not applicable.

##### **III.1.3. Legal form to be taken by the group of economic operators to whom the contract is to be awarded**

See the selection guidelines.

##### **III.1.4. Contract performance conditions**

The performance of the contract is subject to particular conditions: no

#### **III.2. Conditions for participation**

##### **III.2.1. Suitability to pursue the professional activity, including requirements relating to enrolment on professional or trade registers**

List and brief description of conditions: The information shall be submitted by the Applicants in 3-fold as follows:

- 2 hard copies of the application,
- 1 application electronically, as PDF's on a memory stick.

In case of a combined expression of interest by a group of Applicants, every single Applicant shall submit the information requested under III.2.2) to III.2.3). The minimum requirements, information and statements together with the procedure for the Qualitative Selection are described in the Selection Guidelines (see also IV.3.2.) Also the assessment procedure for the different members of a combination is described in the Selection Guidelines.

##### **III.2.2. Economic and financial ability**

##### **III.2.3. Technical and professional ability**

##### **III.2.4. Information about reserved contracts**

#### **III.3. Conditions specific to services contracts**

##### **III.3.1. Information about a particular profession**

##### **III.3.2. Information about staff responsible for the performance of the contract**

### **Section IV: Procedure**

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#### **IV.1. Type of procedure**

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

Restricted

##### **IV.1.2. Information about the limits on the number of candidates to be invited**

Envisaged number of candidates: 5

Objective criteria for choosing the limited number of candidates: See the selection guidelines.

**IV.1.3. Information about reduction of the number of solutions or tenders during negotiation or dialogue**

**IV.2. Award criteria**

**IV.2.1. Award criteria**

The most economically advantageous tender in terms of Price is not the only award criterion and all criteria are stated only in the procurement documents

**IV.2.2. Information about electronic auction**

An electronic auction will be used: no

**IV.3. Administrative information**

**IV.3.1. File reference number attributed by the contracting authority**

Publication Number.

**IV.3.2. Previous publication concerning this procedure**

no

**IV.3.3. Conditions for obtaining specifications and additional documents or descriptive document**

Payable documents: no

**IV.3.4. Time limit for receipt of tenders or requests to participate**

13.5.2013 - 14:00

**IV.3.5. Estimated date of dispatch of invitations to tender or to participate to selected candidates**

2.7.2013

**IV.3.6. Languages in which tenders or requests to participate may be submitted**

English. Dutch.

**IV.3.7. Minimum time frame during which the tenderer must maintain the tender**

**IV.3.8. Conditions for opening of tenders**

**Section VI: Complementary information**

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**VI.1. Information about recurrence**

This is a recurrent procurement: no

**VI.2. Information about European Union funds**

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

**VI.3. Additional information**

Information will only be send to potential applicants.

**VI.4. Procedures for review**

**VI.4.1. Review body**

Official name: Rechtbank Groningen

Postal address: P.O. Box 781

Town: Groningen

Postal code: 9700 AT

Country: Netherlands

Internet address: <http://www.rechtspraak.nl/Gerechten/Rechtbanken/Groningen>

**VI.4.2. Review procedure**

Precise information on deadline(s) for review procedures: Within 20 calendar days following the dispatch of the notification letters concerning the award decision.

**VI.4.3. Service from which information about the review procedure may be obtained**

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

28.3.2013