

**Finland-Helsinki: Spectrometers**  
**OJ S 174/2017 12/09/2017**  
**Contract notice**  
**Supplies**

**Legal Basis:**

Directive 2014/24/EU

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**Section I: Contracting authority**

**I.1. Name and addresses**

Official name: University of Helsinki  
Postal address: P.O. Box 55  
Town: Helsinki  
NUTS code: FI1B1 Helsinki-Uusimaa  
Postal code: 00014  
Country: Finland  
Contact person: Sami Heikkinen  
E-mail: [Sami.Heikkinen@helsinki.fi](mailto:Sami.Heikkinen@helsinki.fi)  
Telephone: +358 294150368  
**Internet address(es):**  
Main address: <http://www.helsinki.fi>

**I.3. Communication**

The procurement documents are available for unrestricted and full direct access, free of charge, at: <https://www.hankintailmoitukset.fi/fi/notice/view/2017-019093>  
Additional information can be obtained from the abovementioned address  
Tenders or requests to participate must be submitted to the following address:  
Official name: University of Helsinki, Archives and Registry  
Postal address: PO Box 3  
Town: Helsinki  
Postal code: 0014  
Country: Finland  
E-mail: [hy-arkki@helsinki.fi](mailto:hy-arkki@helsinki.fi)  
NUTS code: FI1B1 Helsinki-Uusimaa  
**Internet address(es):**  
Main address: <https://www.helsinki.fi/en/university/archive-and-registration-services>

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

Body governed by public law

**I.5. Main activity**

Education

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**Section II: Object**

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

**II.1.1. Title**

NMR 2017, University of Helsinki.

### **II.1.2. Main CPV code**

38433000 Spectrometers

### **II.1.3. Type of contract**

Supplies

### **II.1.4. Short description**

Upgrade of three NMR-spectrometers (300, 500 and 600 MHz 1H-frequency).

Upgrades include updating the hardware and software to achieve new working modern NMR-spectrometer systems.

In the upgrade-process the existing magnets can be utilised.

### **II.1.5. Estimated total value**

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

This contract is divided into lots: no

## **II.2. Description**

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

38433000 Spectrometers

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

NUTS code: FI1B1 Helsinki-Uusimaa

Main site or place of performance: Department of Chemistry, University of Helsinki, A.I. Virtasen aukio 1, 00560 Helsinki, Finland.

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

System upgrade for 3 NMR-spectrometers (300, 500 and 600 MHz 1H-frequencies) to new complete NMR-systems using existing cryomagnets.

The upgraded systems will be used in a multi-user environment with a large variety of NMR-experience, ranging from very basic routine use to demanding experiences and method development. The optimal instrument set-ups should enable very simple and error tolerant operation and also enable various demanding research tasks.

In the upgrade process of the 3 NMR-systems (300, 500 and 600 MHz), the aim is to utilize existing NMR-magnets as well as existing FTS temperature control units (temperatures down to -25 °C). However, it is also possible to offer new magnets, if the existing old magnets are not suitable or feasible for upgrading.

Minimum requirements for all upgraded NMR-systems include new consoles, operating computers, required displays, software, hardware to fit in probe heads (barrels / shim stacks), probe/probes, installation and other parts in order to establish complete modern NMR-systems capable of performing sophisticated liquid state NMR experiments and compiling the specifications for the new instruments of the vendor. All the delivered systems should use the same operating system and software (including pulse sequences, libraries etc.).

Other minimum requirements are listed below.

300 MHz NMR system:

- o Basic level instrument,
- o Probe at least suitable for variable temperature 1H/13C NMR experiments,
- o Probe head with z-axis pulse field gradients and automatic tune capabilities,
- o 2 channels (1 high band and 1 low band),
- o Deuterium lock,
- o z-axis pulsed field gradient unit,
- o Automated shimming and tuning,

- o Sample changer,
  - o Variable temperature operation, for example -100 °C...+150 °C.
- 500 MHz NMR system:
- o Research level instrument, including waveform generators etc.,
  - o Probe at least suitable for variable temperature 1H/X-nucleus (X represent nuclei from 15N to 31P) NMR experiments and equipped with z-axis pulsed field gradients and automatic tune capabilities,
  - o Probe suitable for variable temperature triple-resonance experiments (1H/13C/31P) and equipped with z-axis gradients,
  - o 3 channels (high band and 2 low band), favourably upgradable to 5 or higher,
  - o Deuterium lock,
  - o z-axis pulsed field gradient unit,
  - o Automated shimming and tuning,
  - o Variable temperature operation, for example -100 °C...+150 °C.
- 600 MHz NMR system:
- o Research level instrument, including waveform generators etc.,
  - o Probe for at least suitable for variable temperature 1H/X-nucleus (X represent nuclei from 15N to 31P) NMR experiments and equipped with z-axis pulsed field gradients and automatic tune capabilities,
  - o Probe suitable for variable temperature triple-resonance experiments (1H/13C/31P) and equipped with z-gradients,
  - o 3 channels (high band and two low band), favourably upgradable to 5 or higher,
  - o Deuterium lock,
  - o z-axis pulsed field gradient unit,
  - o Deuterium lock,
  - o Automated shimming and tuning,
  - o Variable temperature operation, for example -100 °C...+150 °C.
- Liquid nitrogen Dewar kit or other transferable accessory required to achieve very low temperatures beyond FTS-cooling units is required. Not all set-ups require individual very-low temperature accessory If one accessory can be used in other set-ups.
- The details of the required system set-ups and probe heads will be elaborated in the final invitation of tenders after the negotiations.

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

Criteria below

Cost criterion - Name: Technical versatility and capabilities of the instrument / Weighting: 25

Cost criterion - Name: Suitability for the purpose / Weighting: 25

Cost criterion - Name: Technical support and service / Weighting: 20

Cost criterion - Name: Price / Weighting: 20

Cost criterion - Name: Available optional accessory exceeding the capabilities beyond minimum set-up / Weighting: 10

#### **II.2.6. Estimated value**

#### **II.2.7. Duration of the contract, framework agreement or dynamic purchasing system**

Duration in months: 5

This contract is subject to renewal: no

#### **II.2.10. Information about variants**

Variants will be accepted: yes

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

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### **III.1. Conditions for participation**

#### **III.1.1. Suitability to pursue the professional activity, including requirements relating to enrolment on professional or trade registers**

List and brief description of conditions:

The supplier should deliver corporate information, annual report and financial statement.

Tenderer has the right to be engaged in a trade and is registered to trade register or similar.

Tenderer has paid all the obligatory taxes, pension fees and social security fees related to its business and meet all the obligated requirements by the society.

The tenderer is supposed to have experience from delivering the same kind of device from the near history. The tenderer is asked to enclose references of similar delivered devices from the past 3 years.

#### **III.1.2. Economic and financial standing**

List and brief description of selection criteria:

The supplier should deliver corporate information, annual report and financial statement.

#### **III.1.3. Technical and professional ability**

List and brief description of selection criteria:

The tenderer is supposed to have experience from delivering the same kind of device from the near history. The tenderer is asked to enclose references of similar delivered devices from the past 3 years.

## **Section IV: Procedure**

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

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

Competitive procedure with negotiation

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

#### **IV.1.5. Information about negotiation**

#### **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.2.2. Time limit for receipt of tenders or requests to participate**

Date: 15/10/2017

#### **IV.2.3.**

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

**IV.2.4. Languages in which tenders or requests to participate may be submitted**  
English, Finnish

**IV.2.6. Minimum time frame during which the tenderer must maintain the tender**  
Duration in months: 3 (from the date stated for receipt of tender)

## **Section VI: Complementary information**

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### **VI.1. Information about recurrence**

This is a recurrent procurement: no

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

The request to participate and the tentative tenders must be submitted in Finnish or English by 15.10.2017 to:

[hy-arkki@helsinki.fi](mailto:hy-arkki@helsinki.fi)

E-mails should be titled as 'NMR 2017 Request to participate'. The size of the e-mail must not be larger than 25 MB. If required, more than one e-mail can be utilized.

The e-mails received after the due date will not be taken into consideration.

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

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

Official name: Markkinaoikeus

Postal address: Radanrakentajantie 5

Town: Helsinki

Postal code: 00520

Country: Finland

E-mail: [markkinaoikeus@oikeus.fi](mailto:markkinaoikeus@oikeus.fi)

Telephone: +358 295643300

Fax: +358 295643314

Internet address: <http://www.oikeus.fi/markkinaoikeus>

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

07/09/2017