

**DKZ/65/2009**

**Date: Warsaw, 16.07.2009**

### Legal Grounds

This public tender is conducted according to Public Procurement Law of January 29, 2004 (position 1655 in Polish Journal of Acts No 223 of 2007 with later changes).

**INSTYTUT TECHNOLOGII ELEKTRONOWEJ**  
Al. Lotników 32/46, 02-668 Warsaw, Poland

### **TERMS OF REFERENCE** for:

**DELIVERY OF THE SYSTEM FOR RESEARCH ON ELASTIC PARAMETERS OF MATERIALS BY  
RESONANT ULTRASOUND SPECTROMETRY (RUS)  
CPV 38540000-2**

**Proceedings are conducted according to open procedure for assessed value below  
EUR 206 000,00**

#### **1. Name (company name) and address of the Awarding entity.**

This proceedings are conducted by Tender Committee of Instytut Technologii Elektronowej,  
Al. Lotników 32/46, 02-668 Warsaw, Poland.  
Web page: <http://www.ite.waw.pl>

#### **2. Procedure for awarding the contract.**

These proceedings are conducted in mode of open procedure according to Article 39 of Public Procurement Law of January 29, 2004.

The tenders submitted will be opened and evaluated by the Tender Committee according to the evaluation criteria.

From all tenders which have not been rejected, the one will be selected which receives the highest number of points calculated according to the evaluation criteria.

#### **3. Description of the object of contract.**

The object of the order is a delivery, installation, start up and testing of the brand new **system for research on elastic parameters of materials by Resonant Ultrasound Spectrometry (RUS) with software**, hereinafter called “**device**”.

Requirements and technical parameters of the object of the order are indicated in appendix No. 1 of this Terms of Reference.

#### **4. Partial and variant tenders are not allowed.**

#### **5. Time limit for contract performance.**

Deadline for completion of the tender including installation, start up and testing – maximally to 60 days after signing the Contract.

**6. Description of the conditions for participation in the procedure and the description of the method used for the evaluation of the fulfillment of those conditions:**

**Eligible to compete for a contract shall be economic operators who:**

- 6.1. Fulfill conditions defined in article 22 paragraph 1 and are not being excluded from the proceedings pursuant to Article 24 paragraph 1 and 2 "Public Procurement Law".
- 6.2. Prove, that within the period of the last three years, or if being active in the business for shorter period – in this period, have completed at least 3 deliveries corresponding in terms of their type and value to supplies being the object of contract, with the indication of the buyers.

Evaluation of the above requirements will be performed according to the rule: "fulfil - not fulfil", on the basis of documents mentioned in point 7 of this Terms of Reference.

**7. Information concerning declarations and documents to be provided by the contractor to confirm the fulfillment of the conditions for participation in the procedure:**

- 7.1. Signed statement, which is enclosed to this Terms of Reference, about fulfillment of conditions defined in article 22 paragraph 1 Public Procurement Law [Appendix No. 2].
- 7.2. Excerpt from the appropriate register or current certificate from commercial entities' evidence, issued not earlier than 6 months prior to deadline for submission of the offers (certified for conformity with original).
- 7.3. The contractor which has its site outside the territory of Poland should submit the following documents:
  - Certificate of not being subject to any liquidation, bankruptcy or similar proceedings, instead of documents mentioned in points 7.2.

The Contractor should submit such documents, in accordance with the legal provisions of the country where they are established signed by authorized person.

If, due to the Contractor's jurisdiction, no official documents are available to confirm any of the requirements listed in items 7.3 above, the Contractor should submit a statement, signed in front of the notary, court or a relevant administrative body, as applicable in contractor's jurisdiction, confirming that the Contractor meets these requirements.

This statement must carry a date, which cannot be more than 6 months in relation to the deadline for the submission of the tender.

- 7.4. The list of the completed deliveries – mentioned in point 6.2 of the Terms of Reference.

**These documents can be presented in the form of originals or photocopies and should be signed by Contractor or his authorised representative.**

**The lack of any of the above documents will cause the tender being rejected from further proceedings.**

**8. Information on the manner of communication between the awarding entity and the contractor as well as of delivery of declarations and documents, indication of persons authorised to communicate with the contractor.**

The contact person in matters concerning the tender are:

Michał Urbański MSc., e-mail: [urbanski@ite.waw.pl](mailto:urbanski@ite.waw.pl)

Please address all written correspondence, related to this tended proceedings, to:

Instytut Technologii Elektronowej  
Al. Lotników 32/46  
02-668 Warsaw, Poland.  
building No VI, room 216  
Fax: + 48 22 548 78 46.

**9. Deposits and guarantees required: we do not require.**

**10. Tender validation time – 30 days.**

**11. Description of the manner of the tender preparation.**

**The tender should include:**

- a) Name and address of the Contractor,
- b) Date of preparation of the tender,
- c) Filled in Appendix No 1 to this Terms of Reference.
- d) Net price in PLN (The price in EUR or USD is allowed. In the case of submission of the tenders in EUR or USD, the price will be exchanged to polish zlotych PLN according to selling exchange rate of the National Bank of Poland dated on the day before of opening of the tenders).
- e) Time of contract performance,
- f) Conditions of warranty,
- g) Indication of the component tasks of the order that will be assigned to subcontractors [Appendix No 3],

**The tender should be signed by Contractor or his authorised representative.**

**Together with the offer the contractor is allowed to submit required documents defined at point 7 of this Terms of Reference, to confirm the fulfillment of the conditions for participation in the procedure.**

**In the case the contractor company is located outside Poland, it is approved to submit the tender as well as the documents required from the contractors as specified under point 7 of this Terms of Reference either in Polish or in English language.**

The contractor is allowed to submit only one offer.

All costs of preparation of the tenders, regardless of the results of the tender, shall be covered by the Contractor.

**12. Date and place of submission and opening of tenders.**

The tenders should be submitted at the site of the Awarding Entity in Warsaw at Al. Lotników 32/46, building No VI, room 216, by 12<sup>00</sup> pm, on 30<sup>th</sup> July 2009 (in working days from 9 am till 2 pm). **The tenders submitted after this deadline will not be considered.**

Opening of the tenders will take place on 30<sup>th</sup> July 2009 at 12<sup>15</sup> pm. at the site of the Awarding Entity: Warsaw, Al. Lotników 32/46 in the building No VI, room 120.

The Awarding Entity will open the tenders in accordance with its internal procedures but on occasion may hold a public opening which your representatives may attend.

The offers must be submitted in non-transparent and closed envelopes or packages. The envelope or package must be addressed as follows:

**Instytut Technologii Elektronowej  
Al. Lotników 32/46  
02-668 Warsaw  
Building No VI, room 216  
Do not open before 12<sup>15</sup> pm, on 30<sup>th</sup> July 2009.**

**OFFER FOR:  
DELIVERY OF THE SYSTEM FOR RESEARCH ON ELASTIC PARAMETERS OF MATERIALS BY  
RESONANT ULTRASOUND SPECTROMETRY (RUS)**

The envelope or package must include full name and address of the Contractor.

The Awarding Entity does not accept responsibility for consequence of contractors failure to keep the above requirements.

### 13. Description of the method of the price calculation.

**The net price in PLN (EUR or USD) must include:**

- a) the device according to requirements indicated in Appendix No 1 of this Terms of Reference,
- b) transport,
- c) delivery conditions DDP Warsaw
- d) insurance,
- e) installation and start up
- f) acceptance test.

### 14. Description of criteria which the awarding entity will apply in selecting a tender, specifying also the importance of particular criteria and method of evaluation of tenders.

The Awarding Entity will evaluate whether the tender meets requirements introduced in this Terms of Reference. If the tender is valid (meets requirements introduced in this Terms of Reference), it will be taken into consideration in choice of the best one.

**Offer evaluation criteria:**

- Price - 80%
- Quality of the device - 20%

Within each of the criteria, the evaluation will take place according to the following rules:

#### 14.1 For the price: number of points in the price criteria will be calculated according to the following formula:

$$P_n = C_{\min} / C_n * 100 * W$$

- where:  $P_n$  – points in price criteria  
 $C_{\min}$  – the lowest price from all the offers  
 $C_n$  – the price from the offer of n-th bidder  
 $W$  – weight of the “Price” criteria”

Maximum number of points to be gained within the price criteria is 80.

#### 14.2 For the quality of the device: number of points in the price criteria will be calculated according to filled table (appendix No 1 to the Terms of Reference) and the following formula:

$$Q_n = \left( \sum_p (0, 1, 2)_p \right)_n / \max \left( \sum_p (0, 1, 2)_p \right)_n * 100 * W$$

- where:  $Q_n$  - points in quality criteria  
 $(0, 1, 2)_p$  - values of points for the evaluation of the p-th parameter  
 $p$  - number of evaluated parameters  
 $n$  - number of the offer  
 $W$  - weight of the “Quality” criteria.

Maximum number of points to be gained within the quality criteria is 20.

**The sum of points received in all criteria makes aggregate evaluation of the tender.**

### 15. Information concerning formalities which should be met following the selection of a tender in order to conclude a public procurement contract.

Contract with the winning Contractor will be signed within the deadline not shorter than 7 days from publication of the tender results, but not later than the date of tender validation.

## **16. Other important statements which will be included in the contract.**

The following statements will be included in the contract:

### **16.1. Indemnity**

- 1) In case of delay, caused by negligence, or poor performance of the Seller, the Seller will pay to the Buyer an indemnity of 0,1% of the value of the equipment delayed for each working day of delay up to 10% of it's value.
- 2) In case of delay in payment, the Buyer will pay to the Seller indemnity of 0,1% of the value of delayed payment for each day of delay up to 10% of it's value.
- 3) In case the Seller will cancel the Contract without reason caused by the Buyer, the Seller will pay to the Buyer penalty of the 10% of the total Contract value and the Seller will transfer back all the received payments for the subject of this contract to the Buyer account.
- 4) In case the Buyer will cancel the Contract without reason caused by the Seller, the Buyer will pay to the Seller penalty of the 10% of the total Contract value plus documentary evidence costs of materials and labour based on the following schedule:
  - a) in period shorter than 30 days from order placement - 20% of the contract value
  - b) in period shorter than 30 days before delivery and acceptance – 100% of the contract value
  - c) in period between mentioned in points a and b – percentage approximated by linear function.
- 5) In case of delay, caused by the Seller, in delivery longer than 3 months, the Buyer can cancel the Contract and the Seller will pay to the Buyer penalty of the 10% of the total Contract value and the Seller will transfer back all the received payments for the subject of this contract to the Buyer account.

### **16.2. Warranty**

- 1) The Seller undertakes a warranty of correct operation and technical quality of the delivered equipment for "warranty period included in the offer" months, calculated from the date of the final acceptance protocol.
- 2) The Seller within warranty period covers costs of the repair or replacement of the defective goods and costs of their transport to the Buyer site after repair.
- 3) During the warranty period, in case of the necessity of the repair outside the Buyer site, the Seller has the obligation to make the repair or replacement within not longer than 12 weeks after the date of the written claim.
- 4) The warranty period will be increased by the time needed for the repair.
- 5) The replaced or repaired parts of equipment will be included a warranty of the Seller or the Producer.
- 6) During the warranty period, the Seller undertakes a maximal service response time within 2 working days after the date of the written claim.

### **16.3. Terms of payments**

Payment will be effected in the following way:

1. 60% of the contract value – (the value from the offer) – payable by the bank transfer to the Seller's account on the basis of an original invoice and shipment documents within 7 days after shipment of the subject of the Contract.
2. 40% of the contract value – (the value from the offer) – payable by the bank transfer to the Seller's account on the basis of an original invoice within 21 days after performing the final acceptance test at Buyer's site and signing the final acceptance test protocol by both parties of the Contract.

The Buyer shall pay to the Seller due amount for the subject of this contract by transfer to the Seller's account in:

.....  
.....

All bank charges in Poland are at the Buyer's account and bank charges outside Poland are at the Seller's account.

#### **16.4. Delivery instruction**

- 1) Subject of the Contract is to be shipped to the address below and placed at the disposal of the Buyer.  
Shipping address: Instytut Technologii Elektronowej  
Al. Lotników 32/46  
02-668 Warsaw, Poland
- 2) The Seller advises to the Buyer about the dispatch by fax (No.+48 22 54-87-803).
- 3) The Seller will deliver CE certificate together with subject of the Contract.

#### **16.5. Acceptance of the subject of the contract**

Start-up of the device includes technical lunch and performing of the functional tests confirming technical parameters of the system according to technical specification and requirements indicated in this Terms of Reference. Acceptance of the subject of the contract will be done by signing by the Seller and by the Buyer final acceptance protocol.

#### **16.6. Setting of disputes**

All disputes arising from the present Contract, failing amicable settlement shall be resolved by the Arbitration Court of the Polish Chamber of Commerce in Warsaw in accordance with the rules of this Court.

#### **17. Requirements concerning the security on due performance of the contract: we do not require.**

#### **18. Procedure for additional explanations.**

Contractor is authorised to address only in written form the Awarding Entity (e-mail is also allowed) with request for additional information regarding the content of this Terms of Reference. The Awarding Entity will respond all the inquiries promptly, provided that such inquiries are submitted no later than 6 days prior to the deadline for submission of the tenders. The questions and the answers will be published on web site of the Awarding Entity.

#### **19. Information on legal protection measures available to an the contractor during the contract award procedure.**

Contractor's legal protection laws are included in Chapter VI of the Public Procurement Law of January 29, 2004 which is available on the Public Procurement Office (PPO) web site: [www.uzp.gov.pl](http://www.uzp.gov.pl)

#### **20. Other matters.**

For all matters not regulated in this Terms of Reference, the provisions of Public Procurement Law of January 29, 2004 will apply.

Zbigniew Poznański  
Deputy Director ITE

**Requirements and technical parameters of system for research on elastic parameters of materials by Resonant Ultrasound Spectrometry (RUS) with software.**

No	Parameter	Requirement	The column to the fulfill by the Tender*	Points
1	2	3	4	
1.	Device type		specify	
2.	Production year	2009	confirm	
3.	Country of manufacturer		specify	
4.	Manufacturer		specify	
5.	The device	brand new	confirm	
6.	Electronics unit	RF generator working primary at frequency $f$ in the range $(f_1; f_2)$ , where $f_1 \leq 0.1$ MHz and $f_2 \geq 3$ MHz.  Additional frequency range $(f_3; f_4)$ : a) no extra frequency range b) $f_3 \leq 0.25$ MHz and $f_4 \geq 7$ MHz; c) $f_3 \leq 3$ MHz and $f_4 \geq 40$ MHz.	confirm and specify frequency $f_1, f_2$  confirm and specify frequency $f_3, f_4$	0 pt. 1 pt. 2 pts.
		Wide band pass receiver working primary at frequency $f$ in the range $(f_1; f_2)$ , where $f_1 \leq 0.1$ MHz and $f_2 \geq 3$ MHz.  Additional frequency range $(f_3; f_4)$ : a) no extra frequency range b) $f_3 \leq 0.25$ MHz and $f_4 \geq 7$ MHz; c) $f_3 \leq 3$ MHz and $f_4 \geq 40$ MHz.	confirm and specify frequency $f_1, f_2$  confirm and specify frequency $f_3, f_4$	0 pt. 1 pt. 2 pts.
7.	Sample holder	1. Holding samples with regular shape of parallelepiped and cylinder.  Dimensions of parallelepiped $a \times b \times c$ in range of: A) no less than $2 \text{ mm} \leq a \leq 25 \text{ mm}$ B) no less than $2 \text{ mm} \leq b \leq 25 \text{ mm}$ C) no less than $0.2 \text{ mm} \leq c \leq 10 \text{ mm}$ .  Diameter $\phi$ and height $h$ (thickness) of cylinder in range of: A) no less than $2 \text{ mm} \leq \phi \leq 25 \text{ mm}$ B) no less than $0.2 \text{ mm} \leq h \leq 15 \text{ mm}$ .	confirm  confirm  confirm	

		2. At least two ultrasound gauges (piezoelectric transducers).	confirm	
8.	Computer	Computer PC equipped with interfaces and software for measurement, acquisition and analysis of data: <u>processor</u> : Intel Core 2 Duo, min. 2.1GHz, 4 MB cache <u>RAM</u> : min. 2 GB <u>Graphic Card</u> : min 256 MB <u>HDD</u> : min 160 GB <u>Optical Drive DVD ± RW DL Light Scribe System</u> Windows XP Pro monitor LCD min. 17", mouse, network card, 4 USB ports, WLAN <u>Color laser printer</u> , A4, min. 10 ppm, min. 900x600dpi, duplex, paper tray.	confirm	
9.	Software	A software for calculation of elasticity parameters ( $c_{ij}$ ) for isotropic and anisotropic materials including single crystals with cubic, hexagonal, tetragonal and orthorhombic symmetries.	confirm and attach a description	
10.	Additional equipment	a) a cover protecting the sample holder against air blows and suppressing noise at room temperature; b) no cover.	specify	1 pt. 0 pt.
11.	Presentation of measurement results	Presentation of the results of measurement performed on a sample formed with any elastic material - resonant spectra with tagged resonant peaks.	confirm and attach the prints	
12.	Acceptance test at the Awarding entity site	Acceptance test will be done on model sample formed with a single crystal chosen from the materials: Si, Al or sapphire after delivery and start up the system at the Awarding entity facility and will include: 1. measurement of resonant spectra of the sample, 2. calculation of elasticity parameters $c_{ij}$ of the sample material,	confirm	

		3. comparison of calculated elasticity parameters $c_{ij}$ of the sample material with data of the standard material published for example by NIST. The sample will be delivered by the Awarding entity.		
13.	Deadline for completion of the tender including installation, start up and testing	maximally to 60 days after signing the Contract	specify time of completion of the tender	
14.	Operating manual and technical documentation in English	assured	confirm	
15.	Warranty period	at least 12 months from the date of the final acceptance protocol	specify the warranty period	
16.	Software upgrades free of charge	within the minimum 3-year period after the date of installation	confirm	
17.	Post warranty service	within 3 years after the date of installation	confirm	
18.	Technical support during	within 3 years after the date of installation	confirm	

\* Imprecise or inaccurate fulfillment of the table in the column 4 will result in rejection of the offer.

.....  
address stamp of the contractor

.....  
/date/

**S T A T E M E N T**

**DELIVERY OF THE SYSTEM FOR RESEARCH ON ELASTIC PARAMETERS OF MATERIALS BY  
RESONANT ULTRASOUND SPECTROMETRY (RUS)**

for Instytut Technologii Elektronowej  
Al. Lotników 32/46, 02-668 Warsaw, Poland

Acting in accordance with the contract award procedure, we certify that we fulfill the requirements specified in Article 22 paragraph 1 of Public Procurement Law, which states that eligible to compete for a contract shall be economic operators who:

1. are authorised to perform specific activities or actions, if such authorisations are required by the law;
2. have the necessary knowledge and experience, and have at their disposal the technical potential and personnel capable of performing the contract; or present a written commitment of other entities where the technical potential and personnel capable of performing the contract is made available to them;
3. are in a financial and economic situation ensuring the performance of the contract;
4. are not liable to exclusion from the award procedure.

.....  
/signature of authorised representative/

**DELIVERY OF THE SYSTEM FOR RESEARCH ON ELASTIC PARAMETERS OF MATERIALS BY  
RESONANT ULTRASOUND SPECTROMETRY (RUS)**

for Instytut Technologii Elektronowej,  
Al. Lotników 32/46, 02-668 Warsaw, Poland

**List of the component tasks of the order that the Tender intends to assign to  
subcontractors**

(in case no such tasks please fill in with dashes)

No.	The scope of contract, which the Tender intends to assign to subcontractors.
1.	
2.	
3.	
4.	
5.	

.....  
*/signature of authorised representative/*