

DKZ/120/2011

Date: Warsaw, 24.10.2011

Legal Grounds

This public tender is conducted according to Public Procurement Law of January 29, 2004 (position 759 in Polish Journal of Acts No 113 of 2010, with later changes), hereinafter referred to as the "Public Procurement Law"

INSTYTUT TECHNOLOGII ELEKTRONOWEJ

TERMS OF REFERENCE

for:

DELIVERY OF THE SYSTEM FOR ALUMINIUM AND METAL ALLOY FILMS DEPOSITION BY SPUTTERING TECHNIQUE

CPV 31700000

Proceedings are conducted according to open procedure for assessed value above EUR 193 000,00

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.

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 the Contract.

The object of the order is a delivery, installation, start up and testing of the brand new **system for aluminium and metal alloy films deposition by sputtering technique**, 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:

The awarding entity does not allow submitting of the partial and variant tenders.

5. Time limit for the Contract performance.

Deadline for completion of the tender – maximally to 45 weeks after signing the Contract.

6. Conditions for participation in the procedure and description of the method used for the evaluation of the fulfilment of those conditions:

Eligible to compete for the Contract shall be contractors who:

- fulfil conditions defined in Article 22 paragraph 1 of Public Procurement Law referred to:

- 1) authorizations to perform specific activities or actions, if such authorizations are required by the law;
- 2) knowledge and experience;
- 3) appropriate technical potential and personnel capable of performing a contract;
- 4) economic and financial standing

- and are not excluding from the proceeding under Article 24 paragraph 1 of Public Procurement Law.

In the proceeding the awarding entity requires from the contractors fulfilling the condition of knowledge and experience.

The contractor should confirm the fulfilment of the condition by performing at least 1 delivery of the system for aluminium and metal alloy films deposition by sputtering technique.

The contractor may rely on knowledge and experience, technical potential, personnel capable of performing the Contract or financial abilities of other entities, regardless of the legal nature of its relations with such entities. In such case, the contractor is required to prove to the awarding entity that it will have at its disposal the resources necessary to performing the Contract, in particular by presenting to this end a written commitment of those entities whereby they undertake to put the necessary resources at the contractor's disposal for the time of their use in performance of the Contract.

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 the Terms of Reference.

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

7.1. Documents confirming the fulfilment of the conditions for participation in the procedure and confirming lack of grounds to exclude from the award procedure, required from the Contractors with company seat or residence in Poland:

7.1.1. The list of the completed deliveries (to confirm fulfilment of the condition "**knowledge and experience**") – the contractor must prove, that within the period of the last three years before deadline of tender submission or if being active in the business for shorter period – in this period, have completed at least 1 delivery of the systems for aluminum and metal alloy films deposition by sputtering technique, with the indication of the price, object of delivery, date of performing, buyer and with enclosed document confirming that this delivery was performed by the contractor with due diligence.

The awarding entity recommends to fill in Appendix No. 4 to this Terms of Reference.

7.1.2. Current excerpt from the appropriate register, if separate provisions require registration to confirm lack of grounds to exclusion pursuant to article 24 paragraph 1 item 2 Public Procurement Law, issued not earlier than 6 months prior to deadline for submission of the offers, and referred to natural persons statement within the scope of Article 24 paragraph 1 item 2 Public Procurement Law.

7.1.3. Current information from the National Penal Register, which will confirm that they are not being excluded from the proceedings pursuant to Article 24 paragraph 1 items 4, 5, 6, 7, 8 Public Procurement Law, issued not earlier than 6 months prior to deadline for submission of the offers.

7.1.4. If, in case of the Contractor with the company seat in Poland, persons, mentioned in Article 24 paragraph 1 items 5, 6, 7, 8 of the Public Procurement Law, whose place of residence is outside the territory of Poland, the contractor shall submit in their respect a certificate of the court or other relevant administrative authorities for the place of residence stating that they have not been validly sentenced within the scope, referred to Article 24 paragraph 1 items 5, 6, 7, 8 of the Public Procurement Law, issued not earlier than 6 months prior to deadline for submission of the offers. If this kind of statements are not available in residence of those persons, the contractor should submit documents including statements signed in the front of the notary, court, administrative body or professional and economical local government.

- 7.1.5. Current information from the National Penal Register pursuant to Article 24 paragraph 1 item 9 of the Public Procurement Law, issued not earlier than 6 months prior to deadline for submission of the offers.
- 7.1.6. Current certificates of no delay with tax and social security payments, or has obtained a immunity or postponement of such overdue payments signed by appropriate authority, issued not earlier than 3 months prior to deadline for submission of the offers.
- 7.1.7. Signed statement confirming fulfilment of the conditions defined in Article 22 paragraph 1 Public Procurement Law and lack of grounds to exclude from the award procedure in Article 24 paragraph 1 – in form of “STATEMENT” [Appendix No. 2 and No. 3].

7.2. Documents confirming the fulfilment of the conditions for participation in the procedure and confirming lack of grounds to exclude from the award procedure, required from the contractors with company seat or residence outside Poland:

- 7.2.1. The list of the completed deliveries (to confirm fulfilment of the condition “**knowledge and experience**”) – the contractor must prove, that within the period of the last three years before deadline of tender submission or if being active in the business for shorter period – in this period, have completed at least 1 delivery of the systems for aluminum and metal alloy films deposition by sputtering technique, with the indication of the price, object of delivery, date of performing, buyer and with enclosed document confirming that this delivery was performed by the contractor with due diligence.

The awarding entity recommends to fill in Appendix No. 4 to this Terms of Reference.

- 7.2.2. Document or documents confirming his not being subject of any liquidation, bankruptcy or similar proceedings, issued in the country of Contractor’s company seat or residence not earlier than 6 months prior to deadline for submission of the offers.
- 7.2.3. Document or documents confirming his not being precluded from participation in public procurement proceedings, issued in the country of the Contractor’s company seat or residence not earlier than 6 months prior to deadline for submission of the offers.
- 7.2.4. Document or documents confirming his not delaying with tax, social security and health insurance payments, or his obtaining an immunity or postponement of such overdue payments, issued by appropriate authority not earlier than 3 months prior to deadline for submission of the offers.
- 7.2.5. Certificate of the court or other relevant administrative authorities for the place of residence or place of residence of a person to whom the documents refer to, within the scope Article 24 paragraph 1 items 4, 5, 6, 7, 8 of the Public Procurement Law, issued not earlier than 6 months prior to deadline for submission of the offers.
- 7.2.6. Signed statement confirming fulfilment of the conditions defined in Article 22 paragraph 1 Public Procurement Law and lack of grounds to exclude from the award procedure in Article 24 paragraph 1 – in form of “STATEMENT” [Appendix No. 2 and No. 3].

7.3. If in place of residence of a person or the country in which the contractor has the company seat or residence, the documents, listed in items 7.2.2. - 7.2.5. above, are not issued, they shall be replaced by a statement signed in the front of the notary, court, other relevant administrative body or professional and economical local government in the residence of a person or the country in which the contractor has the company seat or residence, respectively.

7.4. The contractors may jointly compete for a Contract. In case of submission a tender jointly, each partner presents documents mentioned in items 7.1.2. – 7.1.6. this Terms of Reference separately. In case of submission a tender jointly by the contractors with company seat or residence outside Poland each partner presents documents mentioned in items 7.2.2. – 7.2.5. this Terms of Reference.

7.5. In case of submission a tender jointly, each partner presents the statement confirming lack of grounds to exclude from the award procedure according to Article 24 paragraph 1 of Public Procurement Law separately. The statement confirming fulfilment of the conditions defined in Article 22 paragraph 1 partners can submit jointly.

7.6. The contractors who jointly compete for a Contract are obligated to appoint an authorised representative to represent them in the Contract award procedure or in the procedure and conclusion of a public procurement contract. This authority should be enclosed to the offer.

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

The lack of the above documents will cause the contractor being excluded from further proceedings reserving the right to call him for supplement documents according to Article 26 paragraph 3 of Public Procurement Law.

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

In the award procedure the awarding entity and contractors shall provide all the statements, requests, notifications and information in writing form, by fax or by electronic.

If the awarding entity or the economic operator provides statements, requests, notifications and information by fax or by electronic means, either party at the request of the other party shall acknowledge the receipt immediately.

The contact person in matters concerning the tender is:

Michał Urbański MSc., e-mail: urbanski@ite.waw.pl

Please address all written correspondence, related to this proceeding, to:

Instytut Technologii Elektronowej

Al. Lotników 32/46

02-668 Warsaw, Poland

building No VI, room 216

Fax: + 48 22 548 78 46.

9. Deposit requirements:

The value of guarantees is 25 000 PLN (say: twenty five thousand PLN) and can be paid in one or several of the following forms:

- cash,
- bank sureties or guarantees of collective savings-loan fund, however the surety of collective savings-loan fund is always a financial surety,
- bank guarantees,
- insurance guarantees,
- sureties given by entities, referred to in Article 6b paragraph 5 item 2 of the Act of 9 November 2000 on Establishment of Polish Agency for Enterprise Development (Polish Journal of Acts No. 109, item 1158 with later changes).

The deposits introduced in cash has to be provided before opening of the tenders.

The guarantees introduced in cash should be transferred to the awarding entitie's bank account : BRE Bank S.A. O/Warszawa 47 1140 1977 0000 5580 4500 1001 (IBAN PL 47 1140 1977 0000 5580 4500 1001 SWIFT BREXPLPW).

The guarantees introduced in any other forms should be submitted at ITE cash office which is located at Instytut Technologii Elektronowej, Al. Lotników 32/46, 02 – 668 Warsaw, Poland, building VI, room 218 (working hours: 9:00÷14:00).

The awarding entity will withhold guarantee within interests in cases defined in Article 46 paragraphs 4a and 5 of the Public Procurement Law.

10. Tender validation time :

Tender validation time comes to 60 days from the date of submission of the tenders.

11. Description of the manner of the tender preparation.

The tender should be presented in writing form according to the tender form [Appendix No. 5 to the Terms of Reference] and must include in particular:

- a) name and address of the contractor,
- b) date of preparation of the tender,
- c) price – the awarding entity allows presenting the price in one of the indicated currencies: PLN, EUR, USD, GBP.

In the case of submission of the tenders in EUR, USD or GBP, for comparison the tenders, the price will be exchanged to Polish zlotys PLN according to selling exchange rate of the National Bank of Poland dated on the day before of opening of the tenders.

Together with the offer the contractor is allowed to submit:

- filled and signed Appendix No. 1 to the Terms of Reference,
- documents confirming the fulfilment of the conditions for participation in the procedure and confirming lack of grounds to exclude from the award procedure specified correspondingly in items 7.1. or 7.2. of the Terms of Reference.

The tender has to be signed by the contractor or his authorised representative.

In case the contractor's company is located outside Poland, it is approved to submit the tender as well as the documents required from the contractor as specified under point 7 of the 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 tender, 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 10⁰⁰ am, on 5th of December 2011** (in working days from 9 am till 2 pm). The tenders submitted after this deadline will not be considered.

The awarding entity forthwith inform the contractor that the tender was submitted past deadline and return the tender after the expiry of time limit for lodging the appeal.

Opening of the tenders will take place on 5th of December 2011 at 10¹⁵ am 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 10¹⁵ am, on 5th of December 2011.**

**OFFER FOR:
DELIVERY OF THE SYSTEM FOR ALUMINIUM AND METAL ALLOY FILMS DEPOSITION BY
SPUTTERING TECHNIQUE**

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 tender price must include all the costs, which the contractor have to pay to perform the object of the Contract, described in the Terms of Reference inside the law:

- a) price of the device specified in point 3 of the Terms of Reference,
- b) installation,
- c) start up,
- d) testing of the device,
- e) transport,
- f) delivery conditions: DDP Piaseczno,
- g) insurance,
- h) training according to points 22 and 23 of the Appendix No. 1.

The tender price must also include all the proper charges, particularly taxes and other liabilities.

The contractor have to present the tender price according to the tender form, that means net value, VAT and gross value separately.

In case of the contractor's company located outside Poland, the tender form may present only net value without indicating VAT. The awarding entity for evaluation and comparison of the tenders will add VAT to the net price according to current tax regulations.

14. Description of the 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 the Terms of Reference. If the tender is valid (meets requirements introduced in the Terms of Reference), it will be taken into consideration in choice of the best one.

Offer evaluation criteria:

- Price Weight: - 100%

Number of points in the price criteria will be calculated according to the following formula:

$$P_n = C_{\min} / C * W$$

where: P_n – points in price criteria
 C_{\min} – the lowest price from all the offers
 C – the price of the evaluating offer
 W – weight of the criteria

Maximum number of points to be gained within the price criteria is 100.

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

The Contract with the winning contractor will be signed pursuant to Article 94 Public Procurement Law.

The Contract is concluded under procedure according to Title IV of Public Procurement Law.

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 object of the Contract for each day of delay up to 10% of its value, without prejudice to point 5.
- 2) In case of delay in payment, the Buyer will pay to the Seller indemnity of 0,1% of the value of the object of the Contract for each day of delay up to 10% of its value.
- 3) In case the Seller will cancel the Contract because of reason caused by the Seller, the Seller will pay to the Buyer penalty of the 10% of the value of the object of the Contract and the Seller will transfer back all the received payments for the object of the Contract to the Buyer account.
- 4) In case the Buyer will cancel the Contract because of reason caused by the Buyer, the Buyer will pay to the Seller penalty of the 10% of the value of the object of the Contract 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 will issue a letter of warranty.
- 2) 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 signing the final acceptance protocol.
- 3) 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.
- 4) During the warranty period the Seller has the obligation to make the repair or replacement within not longer than 12 weeks after the date of the written claim.
- 5) The warranty period will be increased by the time needed for the repair.
- 6) The replaced or repaired parts of equipment will be included a warranty of the Seller or the Producer.
- 7) During the warranty period, the Seller undertakes a maximal service response time within 3 working days after the date of the written claim.

16.3. 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
 ul. Puławska 34
 05-500 Piaseczno, 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.

16.4. Terms of payments

Payment will be effected in the following way:

1. 80% of the contract value – (the value from the offer) – payable at delivery by the bank transfer to the Seller's account on the basis of an original invoice and shipment documents within 14 days after shipment of the subject of the Contract,
2. 20% 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 14 days after signing the acceptance 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.

16.5. Acceptance of the subject of the Contract

1. The preliminary acceptance test of the subject of the Contract will be performed at the Seller facility place of its origin in the presence of the Buyer and Seller representatives before dispatching the goods. The preliminary acceptance test procedure will be based on assessment of the results of the functional tests confirming technical parameters of the system according to technical specification as well as performing at least one of the sputtering processes specified in the Table 1 of the Appendix No. 1 to the Terms of Reference.

The results of the acceptance test must be accepted by signing by the Seller and the Buyer preliminary acceptance test protocol.

2. The final acceptance test will be performed after delivery, installation and start up of the subject of the Contract. The final acceptance procedure will be based on assessment of the results of the functional tests confirming technical parameters of the system according to technical specification as well as performing sputter deposition of the metal layers specified in the Table 1 of the Appendix No. 1 to the Terms of Reference.

The results of the final acceptance test must be accepted by signing by the Seller and the Buyer the final acceptance test protocol.

16.6. Force Majeure

1. The parties shall be free of responsibilities for non-fulfilment of their obligations due to Force Majeure or these obligations will be change according to the point 4. Force Majeure shall be considered as an event, unforeseeable by either of the parties at the date of signature of this Contract, arisen after such date and being unavoidable and beyond the control of both parties.
2. Cases of Force Majeure are e.g. flood, earthquake, fire, explosion, war, mobilisation, strikes, blockades, general shortage of transport.
3. The party wishing to claim Force Majeure shall notify the other party in writing without delay on the intervention and on the cessation therefore.
4. Such party must certify the case of Force Majeure to the other party by documentation issued by the competent official authority of this country. The dates and periods for fulfilment of these obligations will be postponed or extended by the period of existence of the state of Force Majeure.

16.7. Modifications of the Contract

The Buyer reserves himself the right to modificate the time limit for the Contract performance due to organizational or technical reasons caused by the Buyer, in particular: caused by carrying out planned technological works within realized projects, averages or eventual delays due to the modernisation works carried out in the awarding entitie's lab.

The Buyer allows possibility of changing the total value of the subject of the Contract due to eventual changes in the VAT rates.

16.8. 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:

The awarding entity does not require any security on due performance of the Contract.

18. Procedure for additional explanations.

Contractor is authorized to address the awarding entity only in writing form, by fax or by electronic is also allowed with request for additional information regarding the content of Terms of Reference - in this proceeding till 16th of November 2011. The awarding entity will respond all the inquiries according to the Article 38 of Public Procurement Law.

The questions and the answers will be published on the awarding entitie's web site.

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 Public Procurement Law (available on the Public Procurement Office (PPO) web site: www.uzp.gov.pl).

20. Other matters.

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

Michał Urbański

Vice-Director for Administrative and Technical Affairs

This order has been founded by the EU: project No. POIG.02.01.00-14-081/09-00 Mikrosystemy i NanoTechnologie Elektroniczne dla Innowacyjnej Gospodarki „MINTE” (MEMS and Electronic NanoTechnologies for Innovative Economy).

**Requirements and technical features of the system for aluminum and metal alloy films
deposition by sputtering technique**

No.	Parameter	Requirement	The column to the fulfillment by the Contractor*
1	2	3	4
1.	Model type		Specify
2.	Production year	2012	Confirm
3.	Country of manufacturer		Specify
4.	Manufacturer		Specify
5.	Device	Brand new, not used	Confirm
6.	General requirements	A system for magnetron sputtering of aluminum layers on silicon substrates	Confirm
7.	Types of processes	Sputter-deposition of Al, Al/Si, Al/Si/Cu, Ti/W	Confirm
		Al sputtering rate ≥ 60 nm/min	Confirm and specify
8.	Magnetron sources	4 cathodes with diameter of ≥ 200 mm	Confirm and specify
		Pulsed DC power supply ≥ 5 kW Advanced Energy power supply or equivalent	Confirm and specify
		Pre-sputtering with a shutter; ferrofluidic seal for the rotating parts	Confirm
		Cooling water flow monitoring	Confirm
		Sputtering target is solder bonded directly to the water cooled cathode	Confirm
9.	Cathodes +Targets provided with the system	Four cathodes with Al, Al:Si1%, Al:Si1%:Cu0.5%, targets (5.5N) and 4N Ti10%:W90% target	Confirm
		8 spare cathodes	Confirm
10.	Process chamber and substrate holder	Electrically heated chamber, Temp.= 65°C	Confirm
		The top of the process chamber have to be fully opened- cantilever design with air compressed pistons	Confirm
		Rotating table suitable for eight 4" wafers or \geq four 6" wafers	Confirm
		Substrate holder rotation with adjustable speed; the maximum rotation rate ≥ 12 rpm water cooled ferrofluidic seal for the rotating parts	Confirm and specify
		Easy to exchange liners and shields must protect the vacuum chamber walls; easy to exchange uniformity shields for each target. removal time ≤ 30 min	Confirm and describe

11.	Substrates heating before the deposition process	In the temperature range of 20° - 300°C	Confirm
12.	Substrate ion cleaning before deposition process (pre-etch)	RF supply suitable for SiO ₂ etching with the rate of ≥ 1.5 nm/min	Confirm and specify
		RF bias only supplied to the wafers. Rest of the table to be grounded. Automatic impedance matching system with vacuum capacitors	Confirm
13.	Sputter-deposition processes	In rotate and static modes	Confirm
		Programmable for multilayer and multimaterial deposition	Confirm
14.	Vacuum system for the process chamber	The base pressure of ≤ 5x10 ⁻⁷ mbar before a deposition process must be reached within t ≤ 30min of loading wafers	Confirm and specify
		≥1500 l/s Cryo pump CTI 8 (or equivalent) for the sputtering chamber	Confirm and specify
		An ADIXEN ACP 40G dry pump (or equivalent) with the vacuum pipe enough to place it 2 m from the main frame; ≥ 40 mm dia pipework	Confirm and specify
15.	Loading system	Loadlock suitable for 4" wafers (ready to use), possible to use with 6" wafers; loadlock volume ≤ 6 liter	Confirm and specify
		Loadlock chamber with two stage pumping system: ≥ 80 l/h turbo pump, ultimate base pressure <5x10 ⁻⁵ mbar, <3x10 ⁻³ mbar after 2 min pumping; control of the loading/unloading pressure must be possible	Confirm and specify
16.	Control unit - computer set with LCD	The system must have its own operating PC	Confirm
		Minimum configuration: Processor Intel Core 2 Duo, min. 2.33 GHz, 4 MB cache; min. 2 GB RAM; two ≥250 GB hdd; DVD drive; USB ports; Windows 7 system; LCD min. 17"; keyboard, mouse, network card	Confirm and specify
17.	Computer control	The system has to be PLC (programmable logic controller) controlled. The PLC communicates to a Windows 7 based PC, which is the user interface.	Confirm
18.	Process control	Recipe control of process start pressure and conditions of Deposition/ Etch steps	Confirm
19.	Gas supply	Two MFC controlled gas lines incl. particle filters, pressure gauges: Ar, N ₂	Confirm
20.	Acceptance test – 1) Pre-acceptance test at the Seller's site, 2) acceptance test after installation of the device at the Buyer's site	Two steps: 1) Preliminary acceptance test at the Seller's site must be performed in order to verify the configurations and functional testing of the tools. At least one of the sputtering processes specified in the Appendix No. 1 (Table 1) must be carried out. 2) Final acceptance test at the Buyer's site (ITE, Piaseczno) after installation and start up of the system – sputter deposition of the metal layers specified in the Appendix No. 1 (Table 1); it must be performed in order to	Confirm

		check the layer quality, reflectivity, adhesion to the Si/SiO ₂ substrates, thickness uniformity and resistance.	
21.	Time limit for performance the order	Maximally up to 45 weeks after signing the contract: a) delivery time to the Buyer's site – up to 35 weeks after signing the Contract, b) time limit for installation, start up and testing – up to 10 weeks after signing the Contract	Confirm
22.	Process training	Training of three persons during acceptance test at the Buyer's site	Confirm
23.	Maintenance training	For three persons at a Seller's site; ensured within 9 months after installation time	Confirm
24.	User manual and system documentation	in Polish or English; • User manual: pdf file and printed one, • system documentation: pdf file and printed one	Confirm
25.	Consumables for the period of warranty	Ensured and delivered with the tools	Confirm and specify the list of consumables
26.	Spare parts	Ensured within 10 years after signing the final acceptance protocol	Confirm
27.	Free of charge technical and process support	Ensured within at least 3 years after the date of the final acceptance protocol	Confirm
28.	Service response	Ensured within max. 3 working days after the claim ordered by the Buyer	Confirm
29.	Technical and process support	Ensured within 10 years after the date of the final acceptance protocol	Confirm
30.	Warranty period	Minimum 12 months after the date of the final acceptance protocol	Confirm and specify
31.	Post warranty service	Ensured within 10 years after the date of the final acceptance protocol	Confirm
32.	Installation requirements	electrical, gases and other	Specify or attach to the offer

*** The contractor is allowed to fill in the table in column 4 precisely and readable.**

Table 1

Material	Requirements	
Al, thickness 1 μm, power ≥80% of Pmax., rotate mode	Surface quality observed at an angle	Homogenous surface, good adhesion to the substrate, surface without contamination and luminous points Reflectivity relative to Si as measured by Nanospec at 436nm > 185%
	Thickness uniformity across the wafer 6" (5mm edge exclusion)	± 15 %
	Thickness uniformity across the wafer 4" (5mm edge exclusion)	± 10 %
	Wafer to wafer reproducibility measured in the center point of the wafers (3 pieces)	± 6 %
	Surface resistance; layer thickness 1,0 μm	≤ 33mΩ/□
Al, thickness 1.5 μm, power ≥40% of Pmax. static mode	Surface quality observed at an angle	Homogenous surface, good adhesion to the substrate, surface without contamination and luminous points Reflectivity relative to Si as measured by Nanospec at 436nm > 170%
	Thickness uniformity across the wafer 6"	± 20 %
	Thickness uniformity across the wafer 4"	± 13 %
	Wafer to wafer reproducibility measured in the center point of the wafers (3 pieces)	± 6%
	Surface resistance; layer thickness 1.5 μm	≤ 22mΩ/□
Al/Si/Cu, thickness 1 μm, power ≥80% of Pmax. rotate mode	Surface quality observed at an angle	Homogenous surface, good adhesion to the substrate, surface without contamination and luminous points
	Thickness uniformity across the wafer 6" (5mm edge exclusion)	± 15 %
	Thickness uniformity across the wafer 4" (5mm edge exclusion)	± 10 %
	Wafer to wafer reproducibility measured in the center point of the wafers (3 pieces)	± 6 %
	Surface resistance; layer thickness 1,0 μm	≤ 37mΩ/□
SiO ₂ etching, power = 100%, process time = 2 minutes	SiO ₂ decline	≥3.0nm
Substrate table heating up to 300°C	Temperature measurement using bimetallic thermometer	300°C ±15°C

Uniformity must be measured in accordance with ASTM standa

.....
/address stamp of the contractor/

.....
/date/

STATEMENT

Acting in accordance with the contract award procedure, we certify that we fulfil all the requirements for participation in this proceeding.

.....
/signature of the contractor or his authorised representative/

.....
/address stamp of the contractor/

.....
/date/

S T A T E M E N T

Acting in accordance with the contract award procedure, we certify that there is lack of grounds to exclude us from this proceeding.

.....
/signature of the contractor or his authorised representative/

.....
/address stamp of the contractor/

.....
/date/

THE LIST OF THE COMPLETED DELIVERIES

Submitting the tender in the proceeding conducted in the open procedure for **delivery of the system for aluminium and metal alloy films deposition by sputtering technique** we certify that within the period of the last three years before deadline of tender submission or if being active in the business for shorter period – in this period, we have completed following delivery:

No.	Object of the delivery	Price	Date of performing	Buyer
1	2	3	4	5
1.				

Notice! To each delivery presented in this list should be enclosed documents confirming that this delivery was performed by the contractor with due diligence .

.....
/signature of the contractor or his authorised representative/

.....
/address stamp of the contractor/

TENDER FORM
for Institute of Electron Technology

The object of the order		Delivery of the system for aluminium and metal alloy films deposition by sputtering technique.
1.	Name and address of the contractor	
2.	VAT identification number	
3.	Phone number: Fax: e-mail:	
4.	Net price of the tender VAT rate VAT value Gross price of the tender PLN* / EUR* / USD* / GBP* say: PLN* / EUR* / USD* / GBP* say:
5.	Time limit for the Contract performance: maximally to 45 weeks after signing the Contract	specify:
6.	The persons authorised to represent the contractor
7.	Parts of tender which the contractor intends to subcontract	
8.	The list of documents enclosed to the tender:	1. . .
9.	Place: Date of preparation of the tender:

*choose one currency

.....
/signature of the contractor or his authorised representative