

TENDER DOCUMENTATION

issued pursuant to Section 28 paragraph (1) letter b) of Act No. 134/2016 Coll., on Public Procurement, as amended (hereinafter the “Act”),

for preparation of bids for above-threshold public contract for supplies

contracted within the *open procedure* pursuant to Section 56 of the Act

NAME OF THE PUBLIC CONTRACT:

Non-contact and mask-less printing of geometrically predefined structures from nanomaterials



TENDER DOCUMENTATION

This Tender Documentation (hereinafter the "TD") forms a basis for bidders (hereinafter the "Bidder" or "Bidders") to prepare their bids in a procurement procedure (hereinafter the "Procurement Procedure") seeking public contract pursuant to the Act. The rights, obligations and terms and conditions stipulated herein are governed by the Act.

Public Contract name: **Non-contact and mask-less printing of geometrically predefined structures from nanomaterials**

Contracting Authority

| | |
|--|---|
| Name: | Fyzikální ústav AV ČR, v. v. i. (Institute of Physics of the Czech Academy of Sciences) |
| Registered offices: | Na Slovance 1999/2, 182 00 Praha 8, Czech Republic |
| Identification No.: | 68378271 |
| Tax Identification No.: | CZ68378271 |
| Person authorized to represent the Contracting Authority: | RNDr. Michael Prouza, Ph.D., Director |

(Hereinafter referred to as the "Contracting Authority" for the purposes of this TD and / or the "Buyer" for the purposes of the hereto attached Purchase Contract)

Contact person: Vladimír Levandovský
E-mail: levandovsky@fzu.cz

Substitute of the Contact person: Mgr. Václav Kafka
E-mail: kafkav@fzu.cz

Provision of explanation of TD:

Request for explanation of this TD can be submitted electronically – in particular via the electronic tool **eGORDION v. 3.3 - Tender arena** (<https://tenderarena.cz>). Public Contract details can be found at: <https://tenderarena.cz/dodavatel/seznam-profilu-zadavatele/detail/Z0001082>.

The Contracting Authority will not respond to inquiries submitted in any other way than in electronic form in accordance with Section 211 (3) of the Act. Furthermore, the Contracting Authority will not provide explanations for telephone inquiries.

The Contracting Authority shall publish the answers to all requests for explanation of this TD on the Contracting Authority Profile at <https://www.e-zakazky.cz/profil-zadavatele/74e987e1-b4a1-4571-b8b6-2cd93fe6f932>.



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1 DEFINITION OF THE SUBJECT MATTER OF THE PUBLIC CONTRACT

1.1 Classification of the subject matter of the Public Contract

Classification (CPV) of this Public Contract corresponds to item:

- CPV code: 30232100-5 Printers and plotters
- CPV code: 42900000-5 Miscellaneous general and special-purpose machinery

1.2 Description of the subject matter of the Public Contract

The subject matter of this Public Contract is supply (acquisition) of an universal fully automated system for contactless and maskless printing (direct writing) of geometrically predefined structures from nanomaterial's inks on planar or 3D substrates at defined temperatures of different substrate materials (hereinafter referred to as the "**Equipment**") offering a feature size resolution of 20 µm onto small-size areas (1x1 cm²) to industrially compatible dimensions (>4 inches in diameter). The contactless and mask-less printing (direct writing) of nanomaterials has to be suitable for the fabrication of electrically active or passive parts (electrodes, insulators/capacitors, bio-layers) compatible for the fabrication of (bio) various functional layers and parts in sensors, and detectors. The system will be digitally driven and fully automated to print geometrically predefined structures (objects) such as interdigitals, spots, circles, etc. from different nanomaterials inks (metal oxides, metals, polymers, adhesives, molecules) onto planar and 3D shaped substrates (Si, glass, polymers, ceramics or metals).

More detailed specification is provided in Article 4 below and in Annex No. 3 of this TD (Draft Contract).

The subject matter of this Public Contract is mainly financed from the subsidy of the project "**Sensors and Detectors for the Future Information Society**" (**SenDiSo**) under the *Operational Programme Jan Amos Komenský* (OP JAK) within the framework of EU funds, project registration number **CZ.02.01.01/00/22_008/0004596**.

1.3 Term

Anticipated commencement: immediately after Contract conclusion

Anticipated completion: handover of installed Equipment no later than **8 months** after Contract conclusion

1.4 Place of Performance

Place of delivery, installation and handover of the Equipment is room No. 33 in the building F at Cukrovarnická street No. 112/10, 162 00 Praha 6, Czech Republic.

1.5 Estimated value

Estimated value of the Public Contract is **370 000,00 EUR excl. VAT**.

Considering the available funds of the Contracting Authority, estimated value of the Public Contract is also the maximum permissible level for the bid price. The Contracting Authority stipulates as a condition of the Public Contract that the bid price may not exceed this limit. The Contracting Authority will consider any bids with a bid price exceeding the above limit to be unsatisfactory and they will therefore be excluded from any further participation in the Procurement Procedure.





2 REQUIREMENTS REGARDING THE DRAWING UP OF A BID

- 2.1** Bids shall be submitted in electronic form only, in accordance with the provisions of Section 211 (3) of the Act, using the electronic tool Tender arena. Bids in paper form are not permitted. Other form of delivery is not considered proper submission of the bid.
- 2.2** Bids shall be submitted no later than on **12th August 2024, by 11:00 am**. The Tender arena electronic tool used for the submission of a bid in electronic form is available at <https://tenderarena.cz>. Bidders may find at this link also a guide for using the Tender arena electronic tool (via link "Help" in footer) and helpdesk contact details.
- 2.3** To be able to submit a bid, the Bidder must be registered as a contractor in the **Central Contractor Database** through the **FEN.cz** system. The link to register is <https://cdd.fen.cz/#/>. Registration takes up to 48 hours (on working days) after all required documents have been submitted (either by post or electronically). Registration in the FEN.cz system is not charged. Detailed information on the registration to the Central Contractor Database through FEN.cz system is available at <https://cdd.fen.cz/#/faq>.
- 2.4** The Bidder must have a personal computer with a minimum of the following performance: CPU 1 GHz, 1024 MB memory, 20 GB hard drive, the computer must be connected to the Internet at a minimum connection speed of 2 Mbps (DOWNLOAD) / 512 Kbps (UPLOAD). The computer must have an Internet browser installed (Mozilla Firefox 73.0 and higher, Google Chrome 80.0.3987.106 and higher, Opera 66.0.3515.72 and higher, Microsoft Edge 80.0.361.54 and higher, Internet Explorer 11.657.18362.0 and higher).
- 2.5** The Contracting Authority points out that it bears no responsibility for any technical conditions on the Bidder's side. The Contracting Authority recommends Bidders to consider especially the speed of their Internet connection when submitting bids so that they are submitted within the time limit for submission. This means the final submission of the bid to the Tender arena electronic tool after uploading all the attachments that make up the bid.
- 2.6** The bid may be prepared in the Czech or English language.
- 2.7** The bid must include **identification data of the Bidder**, i.e. primarily: business name, registered office, legal form (if the Bidder is a legal person), or the business name or name and forenames (if the Bidder is a natural person), as well as the identification number, if assigned to the Bidder.
- 2.8** The bid in electronic form shall not exceed 200 MB; of which a maximum of 100 MB is reserved for documents proving qualifications and a maximum of 100 MB for other documents provided within the bid. The bid must be processed through acceptable file formats, i.e. Microsoft Office (DOC(X), XLS(X)), Open Office formats, PDF, JPEG, GIF, or PNG. The values for bid evaluation as specified in this TD will also be submitted to the Procurement Procedure by inserting them into the tender form, which will be displayed when submitting the bid. This is without prejudice to the obligation to submit other documents making up the bid.
- 2.9** For the submission, the bid must be encrypted with a certificate provided within the Tender arena electronic tool (at <https://tenderarena.cz>). In the case of a bid being encrypted with another certificate, such a bid will be considered not delivered to the Contracting Authority in the proper





manner and it will not be considered submitted. **The bid encryption with the certificate is carried out automatically in the Tender arena electronic tool** before the bid submission is finalized.

- 2.10** In the case several Bidders jointly participate in the Procurement Procedure, they will also identify the person who shall be authorized to represent them in contact with the Contracting Authority during the Procurement Procedure.
- 2.11** The Contracting Authority does not specify the *award period* for this Procurement Procedure.
- 2.12 The bid must be submitted in the following structure:**
- a) Cover sheet** setting out the basic identification data of the Bidder and the data for evaluation (please refer to Annex No. 1 hereto);
 - b) documents proving fulfilment of the qualification** in the structure as set out in Article 3 of the TD; all documents proving fulfilment of the qualification may be presented in a plain copy (as scanned image). Bidders may substitute the submission of documents proving fulfilment of the basic qualification by an affirmation (for the purposes of the bid, Bidders may use Annex No. 2 hereto) or substitute the submission of all qualification documents by the European Single Procurement Document;
 - c)** statement defining **the bid price** in the structure according to Article 5 hereof;
 - d) description of the subject of performance of the Public Contract** - the Bidder shall prepare and submit a document describing the actual subject of performance of the Public Contract and demonstrating that the Contracting Authority's requirements are met;
 - e) draft contract** including annexes with filled marked data (please refer to Annex No. 3 hereto).

3 QUALIFICATIONS

3.1 Bidders must demonstrate the fulfilment of

- a)** basic qualification according to Section 74 of the Act,
- b)** professional qualification according to Section 77 of the Act and
- c)** technical qualification according to Section 79 of the Act.

For the purposes of the Bid, it is sufficient to submit a written affirmation (Annex No. 2 hereto), as stated below in point 3.6.1 of this TD.

3.2 Time of proving the fulfilment of the qualification

The Bidder is obliged to prove the fulfilment of the qualification within the deadline for submission of bids specified in point 2.2 of this TD.

3.3 Basic qualification

3.3.1 Basic qualification shall **not** be met by a Bidder who:

- a)** was convicted by final judgement in the country of its registered office / residence of a crime specified in Annex No. 3 to the Act or another similar crime pursuant to the law of the country of its registered office / residence in the past five years preceding the commencement of the Procurement Procedure (expunged convictions are disregarded),
- b)** has outstanding tax arrears registered in tax records in the Czech Republic or in the country of its registered office / residence,





- c) has outstanding arrears in respect of payments and penalties of public health insurance in the Czech Republic or in the country of its registered office / residence,
- d) has outstanding arrears in respect of payments and penalties of social security contributions and contributions to the national employment policy in the Czech Republic or in the country of its registered office / residence,
- e) is in liquidation, has been declared insolvent, in respect of whom the receivership has been imposed under another legal regulation or it is in a similar situation pursuant to the law of the country of its registered office / residence.

3.3.2 Bidders shall prove fulfilment of the basic qualification in relation to the Czech Republic by submitting:

- a) a copy of an entry in the Criminal Records in respect of Section 74 (1) a) of the Act (from the country of its registered office / residence),
- b) confirmation from a relevant tax office in respect of Section 74 (1) b) of the Act (from the country of its registered office / residence and from Czech Republic),
- c) a written affirmation regarding excise duty in respect of Section 74 (1) b) of the Act,
- d) a written affirmation in respect of Section 74 (1) c) of the Act,
- e) a confirmation from a relevant district social security administration in respect of Section 74 (1) d) of the Act (from the country of its registered office / residence and from Czech Republic),
- f) a copy of an entry in the Commercial Register, or a written affirmation in the event that the Bidder is not incorporated in the Commercial Register, in respect of Section 74 (1) e) of the Act.

3.3.3 If the Bidder is a legal person, both this legal person and every member of its governing body shall meet the condition specified in paragraph 3.3.1 point a). Where a legal person is a member of the governing body of the Bidder, the condition specified in paragraph 3.3.1 point a) shall be met by

- a) this legal person,
- b) every member of the governing body of this legal person and
- c) the person representing this legal person in the governing body of the Bidder.

3.3.4 If the Bidder is a branch of a business of

- a) a foreign legal person, the condition specified in paragraph 3.3.1 point a) shall be met by this legal person as well as the head of the branch,
- b) a Czech legal person, the condition specified in paragraph 3.3.1 point a) shall be met by the persons referred to in paragraph 3.3.3 as well as the head of the branch.

3.4 Professional qualification

3.4.1 Bidders shall prove fulfilment of the professional qualification according to Section 77 (1) of the Act in relation to the Czech Republic by submitting a copy of an entry in the Commercial Register or other similar records provided that registration in such records is required pursuant to another legal regulation.

3.4.2 Bidder is not obliged to submit the document specified in paragraph 3.4.1 if legal regulations in the country of its registered office / residence do not require such professional qualification.





3.5 Technical qualification

Fulfilment of the technical qualification pursuant to Section 79 (2) b) of the Act will be demonstrated by a Bidder, who submits a list with significant supplies provided over the past five years before the commencement of this Procurement Procedure, including price and date of provision and the identification of customer of the supply (supplies). The list must contain information on the provision of **min. 1 significant supply** with a specific description of the performed performance and contact (phone or e-mail) of the customer for the purpose of possible verification; being a significant supply shall be considered by the Contracting Authority as the **supply and installation of a non-contact and mask-less printing of geometrically predefined structures from nanomaterials** with financial value of **50 000,00 EUR excl. VAT** (if the value is stated in another currency, it will be converted at the exchange rate published by the Czech National Bank on the day of the commencement of the Procurement Procedure).

3.6 Authenticity and age of documents

- 3.6.1 **Bidders** shall submit all requested documents (a scanned image of a plain copy of a document is sufficient) and **are entitled**, for the purposes of the Bid, **to submit an affirmation** (Bidders may use Annex No. 2 hereto) **or a European Single Procurement Document** instead of these documents, or to submit an extract from the list of qualified suppliers pursuant to Section 228 of the Act.
- 3.6.2 The documents demonstrating basic qualification under Section 74 of the Act shall demonstrate the fulfilment of the required qualification criterion not later than 3 months before the date of the commencement of this Procurement Procedure.
- 3.6.3 Where the Contracting Authority requires a document to be submitted, the Bidder shall submit it in Czech or English language, or it shall be submitted along with its translation into one of these languages.

4 TECHNICAL SPECIFICATION OF THE SUBJECT MATTER

- 4.1 The TD specifies the minimum technical requirements in Annex No. 1 of the Draft Contract (Draft Contract forms Annex No. 3 of this TD). It is permitted that Bidders supply the same or higher-level solution, than those described in the technical specification, but it must always comply with the minimum requirements as set forth herein.
- 4.2 All items which shall form a part of the Equipment must comply with all requirements arising from technical or safety standards valid in the Czech Republic for these types of equipment. Performance required hereunder shall include handover of complete documentation to the Equipment. The Contracting Authority requires that the entire Equipment and all its parts are brand new, not re-used.
- 4.3 Bidders must always comply with technical requirements stipulated herein; should a Bidder fail to comply with these, he shall be excluded from further proceedings. Bidders are obliged to prove guaranteed technical parameters to the Contracting Authority as specified herein, i.e. Bidders shall submit detailed technical specification of the offered solution containing the guaranteed achievable parameters, which must demonstrate compliance with the minimum technical parameters specified in Annex No. 1 to the Draft Contract in the Czech or English language (other





language mutations will not be admissible). Specified parameters must be achieved also during installation of the Equipment at the place of performance. The submitted documentation shall form Annex No. 2 to the Contract.

- 4.4 Should this TD refer to specific commercial trademarks / products or solution, or other designations or visual presentations having relation to a specific supplier / manufacturer, it shall be understood as delineation of an anticipated characteristics and Bidders are entitled to propose other technically or qualitatively compliant solution.

5 STRUCTURE OF THE BID PRICE

- 5.1 **Bidders are obliged to indicate the total bid price, including all required performance; the total bid price is to be quoted in EUR excl. VAT.**
- 5.2 The **total bid price** must include the entire subject matter of the Public Contract and shall represent a fixed, binding amount as the maximum amount and **maximum admissible price**, including all fees and other costs that may be associated with the performance provided hereunder, such as transportation to the place of performance, packaging, custom duties, assembly and installation costs, costs of insurance, etc. At the same time, **the bid price cannot exceed 370 000,00 EUR excl. VAT.** in the event of a bid being submitted citing a bid price higher than this maximum value, such bid will be **excluded** from the Procurement Procedure.
- 5.3 Bidders shall fill in the value of Bid price in the Cover sheet (Annex No. 1 of the TD) and in paragraph 5.1 of the Draft Contract (Annex No. 3 of the TD). If a Bidder indicates unmatching values, the Contracting Authority will consider the data in the Draft Contract binding.

6 TERMS AND CONDITIONS, PAYMENT TERMS

- 6.1 Payment terms are specified in the attached binding Draft Contract, which forms an integral part hereof as Annex No. 3.
- 6.2 Bidders are obliged to accept the Draft Contract without reservation and not to change its text. Bidders are authorized to fill in their identification data, the bid price and other clearly marked information that are to be filled in. Bidders are not authorized to change or add to the Draft Contract in any manner, with exception of those parts which the Contracting Authority highlighted. Any breach of this condition may result in exclusion of the Bidder from the Procurement Procedure.

7 EVALUATION CRITERIA

Bids will be evaluated on the basis of their economic advantageousness, namely **of the lowest Bid price. The Contracting Authority will evaluate the total Bid price in EUR excl. VAT.**

Bidders shall fill in the value of Bid price in the Cover sheet (Annex No. 1 of the TD) and in paragraph 5.1 of the Draft Contract (Annex No. 3 of the TD). If a Bidder indicates unmatching values, the Contracting Authority will consider the data in the Draft Contract binding.

Bids will be ranked according to Bid price from lowest to highest. The winner is the Bidder with the lowest Bid price.





8 ADDITIONAL REQUIREMENTS AND CONDITIONS

- 8.1** The Contracting Authority reserves the right to verify any information provided by Bidders using third parties and Bidders shall be obliged to provide the Contracting Authority with all necessary cooperation in this matter.
- 8.2** The Contracting Authority does not admit variants of the bid.
- 8.3** The Contracting Authority reserves the right to change, specify or supplement the conditions of this Procurement Procedure in accordance with Section 99 of the Act.
- 8.4** Bidders must note that according to Section 2 (e) of Act No. 320/2001 Coll., on financial control in public administration, as amended, the selected bidder will be a person obliged to cooperate in the performance of financial control during the performance of a public contract. This obligation also applies to those parts of the bid, contracts and related documents that are subject to protection according to special legal regulations (e.g. as trade secrets, classified information), provided that the requirements set by legal regulations (e.g. Act No. 255/2012) are met Coll., on inspection (inspection regulations), as amended). The bidders take note that the selected bidder will also be obliged to contractually bind its subcontractors with a similar obligation. The obligation according to this paragraph lasts for a period of 10 years from the date of entry into force of the relevant contract.
- 8.5** The selected Bidder will be obliged to ensure compliance with all labour law regulations (remuneration, working hours, rest periods between shifts, paid overtime), as well as regulations concerning employment and occupational safety and health, for the entire duration of the contractual relationship established on the basis of this Public Contract, valid in the country of his registered office or place of business, to all persons, which will participate in the performance of the Public Contract (regardless of whether it is the Bidder himself or his subcontractors).
- 8.6** The selected Bidder will be obliged to ensure compliance with environmental law in force in his country of residence or place of business, which meets the environmental policy objectives related to climate change, resource use and sustainable consumption and production, for the entire duration of the contractual relationship based on this Public Contract. The selected Bidder must therefore take all measures that can reasonably be required of him to protect the environment and reduce damage caused by pollution, noise and other activities, and must ensure that emissions, soil pollution and wastewater from his activities do not exceed the values laid down in the relevant legislation.
- 8.7** The selected bidder undertakes, within its internal processes, to support a corporate culture based on the motivation of employees to implement innovative elements, processes or technologies.

9 OPENING OF BIDS

The opening of the bids will take place electronically, in accordance with Section 109 of the Act.



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10 COMMUNICATION DURING THE PROCUREMENT PROCEDURE

- 10.1** During the Procurement Procedure, the Contracting Authority will communicate with Bidders in accordance with Section 211 of the Act.
- 10.2** For communication during the Procurement Procedure, the Contracting Authority prefers the use of the electronic tool Tender arena.
- 10.3** Documents within the Procurement Procedure shall be sent by the Contracting Authority through the Tender arena electronic tool accounts of the Contracting Authority and the Bidder or via e-mail (with a guaranteed electronic signature, if possible).
- 10.4** Bidders must be registered in the Central Database of Suppliers to be able to communicate with the Contracting Authority via the electronic tool. The registration is carried out in accordance with point 2.4 of this TD.
- 10.5** The Contracting Authority further emphasizes that in the case of communication carried out via the electronic tool, **the document is delivered as soon as the data message is received** to the electronic address of the recipient or recipients of the data message in the electronic tool.

11 COMPLIANCE WITH THE PRINCIPLES OF SOCIALLY RESPONSIBLE PROCUREMENT, ENVIRONMENTALLY RESPONSIBLE CONTRACTING AND INNOVATION

- 11.1** The Contracting Authority fulfils the principle of socially responsible procurement in relation to the nature and meaning of this Public Contract, especially in decent working conditions in terms of the requirement to comply with occupational safety and health requirements set out in the draft contract in Annex 3 hereto. The Contracting Authority further fulfils this principle by appropriate setting of the parameters of this public contract and the required conditions for participation in this procurement procedure so that this Procurement Procedure and the performance of this Public Contract are also accessible to small enterprises.
- 11.2** The Contracting Authority fulfils the principle of environmentally responsible procurement in relation to the nature and meaning of this Public Contract, especially in terms of compliance with environmental legislation, which meets the environmental policy objectives related to climate change, resource use and sustainable consumption and production in force in the country its registered office or place of business, enshrined in the draft contract in Annex No. 3 hereto. The Contracting Authority also addressed the issue of possible refurbishment or recycling of the device or used materials but found that the use of any refurbished equipment or devices made of worn materials and components would pose a high risk of not achieving the required parameters of the purchased equipment, and thus the threat to the results of excellent research and uneconomical use of investment funds. For the purposes of basic research, it is necessary to purchase new, technically and technologically advanced equipment.
- 11.3** The Contracting Authority fulfils the principle of innovation in relation to the nature and meaning of this public contract by purchasing a new instrument for the purposes of excellent scientific research, which will be used for the purpose of statistical description of objects of nanoscopic dimensions. The acquired device will significantly help to gain new knowledge, which will find its application in basic and applied research. The principle of innovation is thus implicitly expressed





by the very nature of this contract.

12 CONCLUSION

- 12.1** Information and data provided herein (incl. all Annexes) define the binding requirements of the Contracting Authority with respect to the performance of the Public Contract. These requirements must be accepted by the Bidders in full and without reservation, respecting these requirements in preparation of their bid. Non-acceptance of these requirements / conditions (incl. those specified in the respective Annexes) shall be deemed to constitute failure to comply with the tender conditions.
- 12.2** Should this TD or its Annexes refer to specific commercial trademarks / products or solutions, or other designations or visual presentations having relation to a specific supplier / manufacturer, it shall be understood as delineation of an anticipated characteristics and Bidders are entitled to propose other technically or qualitatively fully compliant solution.
- 12.3** By submitting a bid, the Bidder confirms that he has fully acquainted himself with the TD to this Public Contract (incl. all Annexes), that the assignment is comprehensible and clear and that before submitting his bid, he has clarified any disputed provisions or technical ambiguities and agrees with and respects the conditions of the Public Contract.

On behalf of the Contracting Authority:

In Prague

RNDr. Michael Prouza, Ph.D., Director

LIST OF ANNEXES:

1. Cover sheet
2. Affidavit on compliance with qualification requirements
3. Binding Draft Contract with annexes
4. List of significant supplies
5. Manual on how to submit a bid through the Tender arena electronic tool



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