



EVROPSKÁ UNIE
EVROPSKÝ FOND PRO REGIONÁLNÍ ROZVOJ
INVESTICE DO VAŠÍ BUDOUCNOSTI



In Prague, 23rd July 2010
Ref. no. FZU/ELI-125/2010

TENDER DOCUMENTATION

in the compliance with the provision of the Section 44 of the Act No. 137/2006, Coll., on the Public Contracts, as amended (hereinafter referred to as the “Act”)

for quotation processing for the public procurement for services announced in the simplified bellow the threshold with the procurement name:

“Detailed shielding proposal of the ELI experimental areas from laser generated secondary sources”

The financial means for this project shall be claimed from the “Research and Development for Innovations” Operational Programme (hereinafter referred to as “R&DI OP”) Priority Axis 1 – (“PA1”).

I. Identification data of the Contracting Authority:

Name: Fyzikální ústav AV ČR, v. v. i.
Registered office: Na Slovance 2, 182 21 Praha 8
Identification number: 68378271
VAT number: CZ68378271
Name and surname of the person entitled to act on behalf of the Contracting Authority:
Doc. Jan Řídký. CSc. – director, or represented by statutory representative prof. RNDr. Václav Janiš, DrSc
Contact person: Mgr. Petra Koutná Dušková, Ing. Bedřich Rus, Ph.D.
Telephone: 266052885, 266052871
E-mail: duskovap@fzu.cz, rus@fzu.cz

(hereinafter referred to as the “Contracting Authority”)

II. Name and description of the procurement:

2.1. Name of the procurement:

“Detailed shielding proposal of the ELI experimental areas from laser generated secondary sources “

2.2. Project description:

The Contracting Authority has been authorised to manage the implementation of the project of

the International Laser Research Centre ELI (Extreme Light Infrastructure) in the Czech Republic (hereinafter referred to as “ELI Project”).

The ELI Project is one of the projects planned within the “ESFRI Roadmap”.

The main aim of the ELI Project is to create a modern facility and to implement a number of research and application projects focused on laser-matter interaction at a level of radiation intensity 100 times higher than the intensity reached by today’s lasers.

For the purposes of ELI Project the Contracting Authority has to ensure also services defined in this Article Sec. 2.3.

2.3. Description of the activities demanded by the Contracting Authority:

This call for tenders has been published in order to conclude a contract for work with one Bidder (hereinafter referred to as the “Bidder” or the “Tenderer”) which shall bind the Bidder to perform the following tasks for the Contracting Authority for purposes of ELI Project:

a) Production of a document which details the following parameters

- The laser generated source terms.
- Specifications of assumed construction materials that will be used in the ELI experimental areas, their compositions and densities.
- Flux to dose rate conversion factors for protons, electrons, X-rays, muons, etc. and energies.
- Recommended shielding codes/software (FLUKA, MCNPX, Attila)
- The shielding design process description from concept through to detail design.

b) Develop radiological classification of concerned experimental areas

Production of the classification of experimental areas project document for the whole ELI facility. This classification must ensure that dose targets for ELI personnel will meet all existing standards and will be satisfied even at the early stage of plant design and that the building has a rational layout from the perspective of flexible operability.

c) Develop detailed design of bulk shielding

The bulk shielding report will contain a detailed analysis and will specify shield thicknesses and materials (wall, ceilings etc) to ensure the classification targets (detailed in the classification of areas document) are satisfied for each area where laser generated secondary sources of ionising radiation arise. The parameters of bulk shielding will be related to the classification of each laboratory. It will be also based on preliminary, basic beam dump design for the proton and electron beams.

d) Develop a detailed technology design of major penetrations

The design will provide shielding assessment for major penetrations through the bulk shielding of ELI laboratories, involving the following model cases:

- Entrance labyrinth personnel access

- Penetrations larger than 75x75 cm for laser beamlines
- Air conditioning ventilation paths

e) Develop a detailed technology design of minor penetrations

The design will provide shielding assessment for minor penetrations, based upon a supplied penetrations schedule, through the bulk shielding of ELI laboratories, involving the following model cases:

- Wall technology boxes
- Cable routes and cable trays
- Services electrical signals, cooling and technology gases, etc.

f) Design of optimised beam dumps & local shielding design

The goal of this design of beam dump/local shielding optimisation is to ensure activation is minimised, that beam dumps supplement plant bulk shielding and that final beam dump cost is minimised.

g) Develop detailed numerical activation analysis of:

- short-time activation of materials of the designed proton and electron beam dumps and of in-cell materials and equipment
- influence of ionising radiation generated by proton and electron beams to electronic systems (in-cell cameras, diagnostic equipment, signal cables, seals, etc.)

h) Produce formal dose uptake by ELI personnel using ALARA

Produce formal dose uptake report that demonstrates annual plant average and worker group dose accrual. Also sources of laser-generated secondary radiation must be taken into account, including prompt dose, activation doses etc. The report will also demonstrate that all doses are ALARA (As Low As Reasonably Achievable).

i) Suggest procedure of shield testing and commissioning report

Develop and outline procedure/method to ensure that shielding integrity is acceptable and suggest any remedial action, should any shielding shortfall be discovered.

All above mentioned parts of work will be based on the technical parameters stated in the Appendix A of this call for tenders, which creates its integral part.

The Bidder shall submit all parts of work to the Contracting Authority in the form of the project technical reports.

The Bidder undertakes to carry out all works in accordance with valid law and according to instructions of the Contracting Authority.

Contact between the Contracting Authority and the Bidder shall be made in person, by e-mail

and telephone, and also meetings shall be needed to take over and specify the documentation.

2.4. Classification of Subject-Matter of Public Contract:

Classification of Subject-Matter of Public Contract corresponds to item:

- Proposal and realisation of research and development - CPV code: 73300000-5.

III. Time and place of performance of procurement

The place of the performance of the procurement is the registered office of the Contracting Authority and any other places necessary for the performance of the procurement.

The period of the provision of services lasts until 15 December 2010.

IV. Estimated value of the procurement

The estimated value of the procurement shall not exceed 4,500,000 CZK (four millions five hundred thousand Czech Crowns), excluding VAT. It is a "below-the-threshold public contract" on services under Act.

V. Qualification prerequisites

5.1. The Bidder's tender must demonstrate the fulfilment of the **basic qualification prerequisites**. The basic qualification requirements are fulfilled by an Bidder who:

- a) has not been definitively convicted of a criminal offence committed for the benefit of an organized crime group, of a criminal offence involving participation in an organized crime group, legalisation of the proceeds of criminal activity, complicity, accepting bribes, bribery, indirect bribery, fraud, loan fraud, including the cases of preparation for and attempts to accessoryship in such a criminal offence, or if the conviction upon committing such a criminal offence has been expunged; this prerequisite shall be met by the statutory body or by each member of the statutory body in the case of a legal person and, in the case in which a legal person acts as a statutory body or a member of the statutory body of an Bidder, this prerequisite shall be met by the statutory body or by each member of the statutory body of such a legal person; if a tender or request to participate is submitted by a foreign legal person by means of its organisational branch, the prerequisite pursuant to this subparagraph shall also be met, as well as the stated persons, by the head of the organisational branch; such a basic qualification prerequisite shall be met by the Bidder both in relation to the territory of the Czech Republic and to the country of the registered office, place of business or residence thereof,
- b) has not been definitively convicted of a criminal offence in which the facts of the case are related to the object of the business activities of the Bidder under separate legal regulations or in which the conviction upon committing such a criminal offence has been expunged; this condition shall be met by the statutory body or by each member of the statutory body in the case of legal person, and in the case in which a legal person acts as a statutory body or a member of the statutory body of an Bidder, this prerequisite shall be met by the statutory body or by each member of the statutory body of such a legal person; if a tender or request to participate is submitted by a foreign legal person by means of its organisational branch, the prerequisite pursuant to this subparagraph shall also be met, as well as the stated persons, by

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- the head of the organisational branch; such a basic qualifications prerequisite shall be met by the Bidder both in relation to the territory of the Czech Republic and to the country of the registered office, place of business or residence thereof,
- c) has not accomplished elements of unfair competition practices in the form of bribery under a separate legal regulation,
 - d) is not or has not been subject to insolvency proceedings involving its assets, in which the declaration of bankruptcy has been issued or an insolvency petition has not been rejected due to a lack of assets on the part of the Bidder to cover the costs of insolvency proceedings, or the declaration of bankruptcy has not been set aside because of the Bidder's insufficient property or in respect of which the receivership has been imposed under a separate legal regulation,
 - e) is not being wound up,
 - f) has no outstanding tax arrears registered in tax records, either in the Czech Republic or in the country of the registered office, place of business or residence of an Bidder,
 - g) has no outstanding arrears in respect of payments and penalties of public health insurance, either in the Czech Republic or in the country of the registered office, place of business or residence of an Bidder,
 - h) has no outstanding arrears in respect of payments and penalties of the social security insurance and contribution to the State employment policy, either in the Czech Republic or in the country of the registered office, place of business or residence of an Bidder,
 - i) has not been found guilty of grave professional misconduct in the 3 preceding years or has not been given a disciplinary punishment under separate legal regulations, in which the demonstration of professional qualifications under separate legal regulations is required pursuant to § 54(d); when the Bidder pursues such an activity through a person in authority or any other person liable for the activity of an Bidder, this prerequisite shall be applicable to those persons, and
 - j) is not enrolled on the black list of Bidders banned from participating in the performance of public contracts.

The Bidder shall demonstrate the fulfilment of basic qualification prerequisites by supplying:

- a) **a solemn declaration for items 5.1 a), b) of the tender documentation.** The Bidder shall use its own solemn declaration.
- b) **a solemn declaration for items 5.1 c) - j) of the tender documentation;** the Bidder shall use the declaration in Appendix 2 of the tender documentation.

5.2. The Bidder shall demonstrate in the tender the fulfilment of **professional qualification prerequisites**. The fulfilment of the professional qualification prerequisites is demonstrated by an Bidder, who shall submit

- a) **an extract from the Commercial Register,** if it is contained therein, or an extract from any other analogous register, if it is contained therein (a non-certified copy is sufficient),
- b) **evidence of possession of a licence to pursue business activities under separate legal regulations to the extent corresponding to the subject matter of the public contract** (a non-certified copy is sufficient).

5.3. The Bidder shall demonstrate in the tender the fulfilment of **technical qualification prerequisites** by supplying:

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- a) **A list of 2 principal services provided by the economic operator in the past 3 years, confirmed by a solemn declaration** stating their extent and the time of provision in accordance with Sec. 56 Art. 2 letter a) of the Act. This list will include the name of the tender, the name of contracting entity, the place and time of fulfilment and the financial value of the fulfilment. Attach to this list must be at least 2 reference issued by a contracting authority, if the services were provided to the contracting authority, or a certificate issued by another person, if the services were provided to a person other than the contracting authority, or a solemn declaration of the economic operator, if the services were provided to a person other than the contracting authority and, simultaneously, if it is not possible to obtain a certificate from such a person for reasons on the part thereof. A principal service may be considered as providing services similar to this tender, namely in the field of shielding and radiological safety in the medical and nuclear industries.
 - b) **A list of minimum three technicians and technical bodies** to be involved in the performance of the public contract, in accordance with Sec. 56 Art. 2 letter b) of the Act, in the form of solemn declaration.
 - c) **A certificate of education and professional qualifications of the economic operator and those of the economic operator's managerial staff or of persons with equal status and persons responsible for providing relevant services**, in accordance with Sec. 56 Art. 2 letter e) of the Act. The contracting entity requires the Bidder is to have a working team of at least 3 persons performing the public contract, regardless of whether these persons are employees of the Bidder or whether they are in a different relation to the Bidder. These persons must have a university degree of a technical nature focused on mathematical analyse.

The Bidder shall demonstrate the fulfilment of this qualification prerequisite by submitting a list of the members of the team set up by the Bidder to perform the public contract and by submitting a well-structured curriculum vitae of each team member, with each curriculum vitae signed by the given member proving fulfilment minimum qualification prerequisite and proof of education of all team members (non-certified copy of a university diploma). The professional curricula vitae of all the team members shall include at least the following required data: educational achievement, overall length of working experience and length of experience in a field relevant to the position held under the contract (number of years).

The Contracting Authority also requires that the Bidder's team leading researcher has at least 10 years experience in the field of mathematical analyse and in the field of shielding and radiological safety in the medical and nuclear industries.

- d) The Contracting Authority also requires that the Bidder has experience with radiation transport numerical codes including MNCP, Stilla, FLUKA, or others, and the detailed understanding of EU regulations governing the use of ionizing radiation. These last two requests of Contracting Authority the Bidder has to prove by a solemn declaration.
- e) The quality system certificate according to Czech technical standards ČNS EN ISO 9001 for activities comparable with deliverables under this tender, or the comparable certificate under the rules of EU.

- 5.4. The documents proving fulfilment of qualification prerequisite should be in its original or in a certified copy, if the text of the tender document does not say differently.
- 5.5. A foreign Bidder shall demonstrate the fulfilment of qualification prerequisites in accordance with the legal system valid in the country of its registered office, place of business place or place of residence in the extent required by the Act on public contracts or by the Contracting Authority.
If a required document is not issued according to the law valid in the country of registered office, place of business or place of residence, the foreign Bidder is obliged to prove the fulfilment of this part of qualification by a solemn declaration.
If a obligation (which has to be proved in the qualification) is not set in the country of registered office, place of business, or place of residence of the foreign Bidder, the Bidder shall prove this qualification by a solemn declaration.
- 5.6. Evidence demonstrating the fulfilment of the basic qualification prerequisites and the extract from the Commercial Register shall not date more than 90 calendar days from the last day on which the fulfilment of qualifications is to be demonstrated.
A foreign Bidder shall provide the evidence demonstrating the fulfilment of the basic qualification prerequisites in its original language with official Czech translation attached. If the evidence document is in English language, there is no need for the official Czech translation.
- 5.7. The Bidder shall make a written statement to confirm that all the data in the tender is true and that the Bidder has not withheld any relevant facts concerning the Bidder's capacity to perform the contract and is prepared to fulfil the conditions of the contract in a reliable manner and without delay.

VI. Calculation of the tender price and payment conditions

6.1. The tender price shall be quoted in Czech Crowns (CZK), separately excluding VAT, including VAT, and as a total price including VAT. The Bidder is required to specify the tender prices for individual parts of the work as divided in Section II, Article 2.3 a) to i) of this call for tenders, and also this individual parts of work divide into assumed men/hours with the rate of one hour.

The Contracting Authority requires having the total price for the complete supply specified in the tender.

The tender price shall include all the relevant costs on the part of the Bidder which are necessary for the performance of the public procurement.

The billing address is the address of the Contracting Authority:
Fyzikální ústav AV ČR, v. v. i., Na Slovance 2, 182 21 Praha 8.

6.2. The total agreed work price shall be paid to the Bidder in Czech Koruna.

The Bidder shall be entitled to invoice the Contracting Authority 30% of the total agreed work price after the signature of the relevant contract between the Contracting Authority and the

Bidder, 40% of the total agreed work price after delivery of at least five parts of the work as described in Art. II Sec. 2.3 of this call for tenders to the Contracting Authority, and the last 30% of the total agreed work price after the date when the whole work defined in Art. II, Sec. 2.3., letter a) to i) shall be delivered to the Contracting authority.

The due date of the invoices is thirty (30) days from a date of their delivery to the Contracting Authority.

VII. Deadline and place of tender submissions:

7.1. The tender shall be delivered by post or in person to the address of the registered office of the Contracting Authority. **The deadline for submissions is scheduled for 23rd August 9.00 a.m.** The moment when the tender is received by the Contracting Authority is deemed as the moment of submission.

7.2. The envelope containing the tender shall be properly sealed, bearing the address of the Bidder, and the name of the procurement shall be written on it visibly:

“Veřejná zakázka (*The public tender*) - “Detailed shielding proposal of the ELI experimental areas from laser generated secondary sources”- NEOTEVÍRAT (*DON'T OPEN*).

7.3. The tender shall contain all the identification data of the Bidder, in particular: the business name, the address of the registered office, the identification number, the person entitled to act on behalf of the Bidder or, if necessary, the person authorized to represent the Bidder and the contact address for written correspondence between the Bidder and the Contracting Authority.

7.4. The tender shall be written in Czech or English and shall include a draft contract signed by a person authorized to act on behalf of the Bidder or in the Bidder's name.

7.5. The Bidder shall submit the tender in duplicate, marked “Original” and “Copy” respectively. All sheets shall be firmly connected or stapled to prevent any sheet from being removed from the tender. All printouts shall be duly legible and the text shall not contain items crossed out or overwritten.

7.6. All the pages of the tender, or all the pages of the individual printouts, shall be numbered in continuous ascending order.

7.7. The Bidder shall also submit the tender in electronic form on a CD in a MS Office format or compatible or as a PDF file (this does not apply to evidence demonstrating the fulfilment of qualification prerequisites).

7.8. The tender shall be structured as follows:

- a) Cover sheet of the tender
The cover sheet shall include the following information: the name of the procurement, the basic identification data of the Contracting Authority and the Bidder (including the persons authorized to act), contact information (contact

person for the given procurement, telephone number, e-mail etc.), the tender price not exceeding the estimated contract value, structured and quoted according to the tender documentation and the date and signature of the person entitled to act on behalf of the Bidder (use **Appendix 1** of this call for tenders)

- b) evidence demonstrating the fulfilment of the qualification prerequisites under Section V,
 - in the case of the solemn declaration under Article 5.1 a) and b) the Bidder shall use his own declaration
 - in the case of the solemn declaration under Article 5.1 c) - j), the Bidder shall use **Appendix 2**, and another evidence in accordance with this tenders documentation,
- c) a draft contract signed by the person entitled to act on behalf of the Bidder or in the Bidder's name,
- d) a declaration confirming the tender as correct and binding, signed by the person entitled to act on behalf of the Bidder or in the Bidder's name.

VIII. Award period

The period throughout which the Bidders are bound by their tender expires on 23rd October 2010. The award period shall run from the date of expiry of the time limit for the submission of tenders and cease to run on the date of delivery of the notice by the Contracting Authority of the selection of the most suitable tender. The award period shall be extended in respect of the Bidders that the Contracting Authority is entitled to conclude a contract with in compliance with this Act, until the conclusion of a contract or until the setting aside of the award procedure.

IX. Tender Evaluation Criteria

9.1 The tenders shall be evaluated by their economic advantageousness. The evaluation shall be carried out according to partial evaluation criteria and their relative weighting:

9.2 Partial evaluation criterion:	relative weighting
a. tender price	60 %
b. The quality of proposed services	40 %

Data for partial evaluation criteria and the means of evaluation:

To tender price - The overall price in CZK excluding VAT is being evaluated.

To the quality of proposed services - Within the scope of this criterion assessment, the Contracting Authority will evaluate technical level and complexity of the proposed fulfilment and quality of methodology of proposed fulfilment. In the scope of this criterion the Contracting Authority shall evaluate: a) The method of setting of this procurement, which the Bidder is required to describe to the Contracting Authority in the offer, which will contain the overall approach of the Bidder to fulfilment of the public contract (the maximal number of points for this criterion is 50), b) the description of the management and organization of this procurement with the intention on the description of demands on cooperation with the Contracting Authority (the maximal number of points for this criterion is 50).

The subject of evaluation in the framework of this criterion will be:

- a) Objective understanding of essence of solution, objective correctness of processing and interpretation of the proposal,
- b) Technical level of proposal adequate to the subject of work in accordance to the Art. 2 of this call for tenders,
- c) Logical cohesion of individual parts of proposal.

The mode of evaluation of offers

The evaluation of offers will be made by point method, where each individual offer will receive in the frame of each criterion the value of points, which reflects the success of the offer in the frame of the criterion. Individual point values according to partial criteria will be multiplied by relative weight of the specific criterion. The sum of weighted point values of each offer will set order of results so that the most successful is the offer which received the highest sum of point values.

X. Business terms:

The Contracting Authority lays down the following basic business terms which shall be incorporated by the Bidder into the draft of contract for work:

The contract shall fulfil all the requirements of the Ministry of Education, Youth and Sports for the projects of the R&DI OP (PA1) as mentioned below – items d), e), g), h) and i).

- a) The draft contract shall not contradict or in essential way restrict the Contracting Authority's rights or requirements specified in this documentation.
- b) The draft contract shall be signed for the Bidder by a person entitled to act or by an attorney. In such cases, the original or an officially verified copy of the authorisation document shall be included in the draft contract.
- c) The draft contract shall bind the Bidder to perform and to handover the work as described in Article II Sec. 2.3 letter a) to i) of this call for tenders to the Contracting Authority by 15th December 2010.
- d) In the draft contract the Bidder shall state that according to Act no. 320/2001 Coll., Act on Financial Control Art. 2e), he as the chosen supplier is obliged to co-operate by execution of financial control.
- e) In the draft contract, the Bidder shall agree to be subject to audits by the Management Authority of the R&DI OP and will enable access even to those parts of bids, contracts and related documents, which are subject to protection according to special legal acts provided that conditions of legal acts are fulfilled. These audits will be applied for minimum of three years after termination of R&DI OP according to Art. 90 of the Council Regulation 1083/2006 eg. at least to year 2021.

If part of the supply is provided by a Subcontractor, the Bidder is obliged to ensure fulfilment of obligations mentioned in this Article by the Subcontractor as well.

- f) If part of the public contract is provided by a subcontract, the Contracting Authority requires to state in the draft contract, which part will be provided by a third party and who will this be (the Bidder is obliged to state identification data of the Subcontractor). The Subcontractor can only be changed after written approval of the Contracting Authority.
- g) In compliance with the regulations of the Ministry of Education, Youth and Sports for the projects of the PA1 R&DI OP, the Bidder shall use a uniform system of identification for all the accounting documents relating to the project and, more specifically, use a chosen identification sign (name of the project, registration number of the project).
- h) The Bidder shall indicate in the draft contract that the Contracting Authority has the right to withdraw from the contract without any penalty and to reduce the extent of supplies, should the Contracting Authority not be granted the subsidy for the performance of the contract or should the subsidy be reduced or postponed.
- i) The Bidder shall indicate in the draft contract that the Contracting Authority has the right to withdraw from the contract, should the costs which may arise from the contract for the Contracting Authority are found to be inadequate by the Management Body of the R&DI OP or by another auditing authority.
- j) The Bidder shall indicate in the draft contract that failure by the Bidder to meet agreed deadlines shall result in a contractual fine of 5000 CZK, due to be paid to the Contracting Authority for every day the Bidder is in default of fulfilling his commitments.
- k) The Contracting Authority shall have the right to unilaterally establish any contractual fine against any claim the Bidder may have against the Contracting Authority.
- l) The payment of a contractual fine shall not in any way affect the right of the Contracting Authority to claim potential damages, including claims for loss of profit in the event of default of providing services, and claims for damages shall not be limited to the amount of the contractual fine.
- m) The price and payment conditions in the draft contract shall comply with the requirements of Art. 6 of this call for tenders.
- n) Regulations of the contract which are not stipulated by these business terms shall be governed by Act no. 513/1991 Coll., Commercial Code, as amended.
- o) Potential disputes between the Contracting Authority and the Bidder shall be decided upon by the court which has jurisdiction in the place of the registered office of the Contracting Authority. Arbitration proceedings shall not be applied.

XI. Other information:

1. The Contracting Authority doesn't allow variants of this tender.
2. The chosen Bidder shall be called upon to conclude the contract.

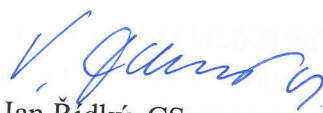
XII. Opening of envelopes with tenders

Opening of envelopes with tenders will take place the **23rd August at 13 p.m.** in the the registered office of the Contracting Authority at the address Na Slovance 2, 182 21 Prgue 8, room No. 107. The tenderers whose tenders have been delivered to the contracting entity within the time limit for the submission of the tender are entitled to take part in the opening of envelopes. At the opening of envelopes these participants have to prove themselves by the full powers drawn by the person authorised to act in the name of the tenderer.

Enclosure list:

- Cover sheet of the tender
- Solemn declaration
- Technical annex

Fyzikální ústav AV ČR, v. v. i.,



doc. Jan Řídký, CSc.
Director

Fyzikální ústav AV ČR
veřejná výzkumná instituce
182 21 Praha 8, Na Slovance 2
- 1 -



Cover Sheet of the Tender

Basic data:

Name of public contract:

Contracting Authority: **Fyzikální ústav AV ČR, v. v. i.**
Registered office: Na Slovance 2, 182 21 Praha 8
Identification number: 68378271
Person entitled to act on behalf of the Contracting Authority: doc. Jan Řídký, CSc., director
Contact person: Mgr. Petra Koutná Dušková
Telephone: 266 052 885
Fax: 286 890 265
E-mail: duskovap@fzu.cz

Bidder:
Registered office:
Identification number:
VAT number:
Person entitled to act on behalf of the Bidder:
Bank connection:
Persons authorized to represent:
Contact person:
Contact address:
Tel.:
E-mail:

Tender price:

Total price excluding VAT:

Total price including VAT:

.....
Business name – person entitled to act for the Bidder
(to be filled in by the Bidder)

Solemn declaration

under Act no. 137/2006 Coll., Act on Public Contracts (hereinafter referred to as "Act")

I hereby solemnly declare that:

- | | |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| under § 53 (1) (c) of the Act | - the Bidder has not accomplished elements of unfair competition practices in the form of bribery under § 49 of the Commercial Code |
| under § 53 (1) (d) of the Act | - the Bidder is not or has not been subject to insolvency proceedings involving its assets, in which the declaration of bankruptcy has been issued or insolvency petition has not been rejected due to lack of assets on the part of the Bidder to cover the costs of insolvency proceedings, or the declaration of bankruptcy has not been set aside because of the Bidder's insufficient property or in respect of which the receivership has been imposed on under separate legal regulation |
| under § 53 (1) (e) of the Act | - the Bidder is not being wound up |
| under § 53 (1) (f) of the Act | - the Bidder has no outstanding tax arrears registered in tax records, both in the Czech Republic and in the country of the registered office, place of business or residence of an Bidder, |
| under § 53 (1) (g) of the Act | - the Bidder has no outstanding arrears in respect of payments and penalties of public health insurance, both in the Czech Republic and in the country of the registered office, place of business or residence of an Bidder, |
| under § 53 (1) (h) of the Act | - the Bidder has not arrears in respect of the payment of the social policy and the state employment policy contributions, both in the Czech Republic and in the country of its registered office, place of business or residence, |
| under § 53 (1) (i) of the Act | - the Bidder has not been found guilty for grave professional misconduct in the preceding 3 years or has not been imposed a disciplinary punishment under separate legal regulations, where demonstration of professional qualifications under separate legal regulations is required pursuant to § 54(d); this |

prerequisite is fulfilled also by the person in authority and other persons liable for the activity of the Bidder,

under § 53 (1) (j) of the Act

- the Bidder does not appear on the black list of Bidders banned to participate in the performance of public contracts.

place..... date.....

.....

Business name – person entitled to act for the Bidder

(to be filled in by the Bidder)

Annex A to tender documentation with the name:

Detailed shielding of the ELI experimental areas from laser-generated secondary sources

Pulsed secondary sources of electrons and protons will be generated by design in the ELI laboratory in the interactions of ultrashort laser pulses with gas or foil targets at intensities exceeding 10^{18} Wcm^{-2} . These electron and proton sources will be used in fundamental research (material sciences, dense plasma physics) and in development of new medical applications, especially of new techniques of tumor treatment. Electron and proton sources with duration of $\sim 100 \text{ fs}$ will be typically generated with repetition rate 0.1 to 10 Hz.

A scheme of the designed ELI laser building is in Figure 1. Experiments featuring generation of secondary sources of charged particles will be carried out in target areas located in the basement. Additionally to areas dedicated to programmatic research and applications of the accelerated electrons and protons (see Fig.1) the secondary sources of particles will also be generated in the areas designed for research of dense plasmas and of exotic physics.

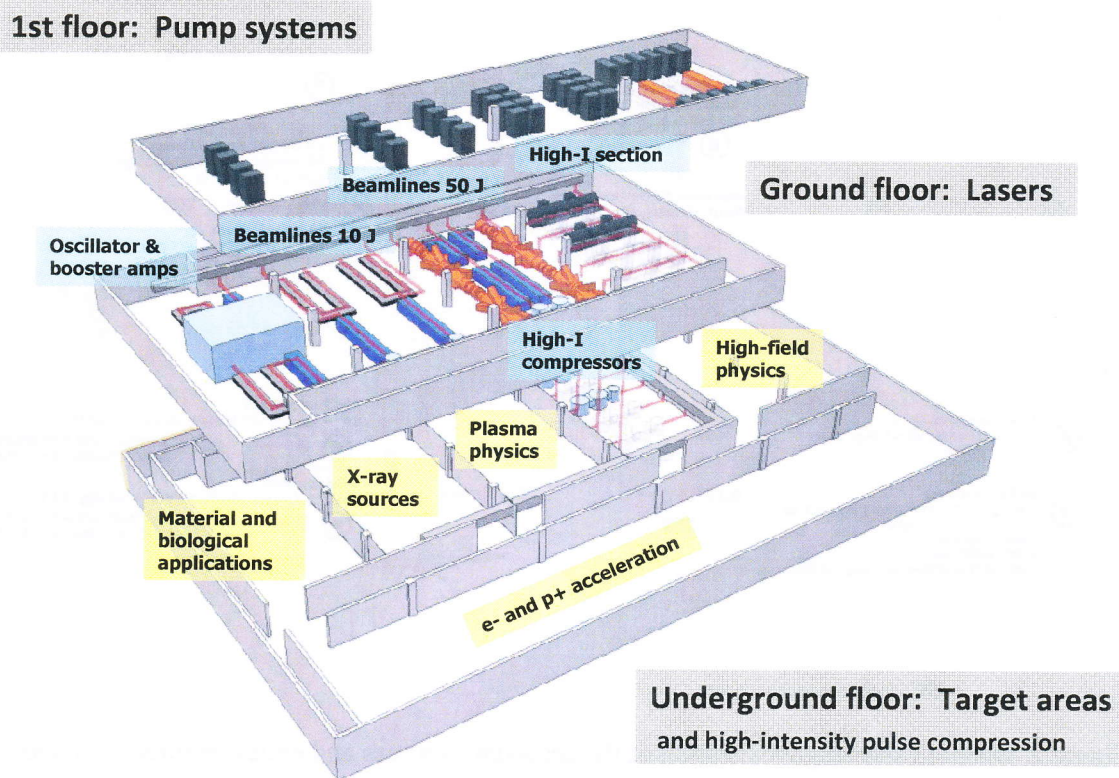


Figure 1. Layout of the ELI laser building showing the individual laser and technology systems (ground floor and the 1st floor) and the experimental areas (basement).

The scheme of operation of the experimental areas with generation of secondary sources of electrons and ions will be comparable to that of facilities operating small and medium scale particle accelerators. A typical operation regime in the configuration aimed at the generation of electrons and/or ions will be the following:

- a) Laser beamlines 10J a 50J, repetition rate 10 Hz:
10 mins of total continuous running time per day (6 000 laser pulses)
- b) Laser beamlines 10 PW, repetition rate max. 0.1 Hz:
maximum 100 laser pulses per day

The required shielding must be designed in a way to ensure, assuming the above mentioned operation regime, the following dose uptake criteria:

- public and ordinary ELI personnel : 0.1 mSv/year
- laboratory workers operating the concerned target areas: 1 mSv/year

The required classification of the experimental ELI areas must be split up into the following categories:

- R0 < 0.5 μ Sv/h
- R1 < 7.5 μ Sv/h
- R2 < 25 μ Sv/h
- R3 > 25 μ Sv/h

Location of the secondary sources in the basement of the ELI laser building is represented in Figure 2. The indicated parameters of the individual sources (energy, number of particles) represent the maximum achievable values expected at the ELI facility.



Figure 2. Diagram showing localization of the secondary sources and emission directions within the basement of the ELI laser building.

Quasi-monochromatic electrons: interaction of high-power laser pulses with gas targets

- (A) 2 GeV / 1 nC, angular divergence <1 deg, frequency 10 Hz
- (B) 50 GeV / 1.5 nC, angular divergence <1 deg, frequency max 0.1 Hz

Quasi-monochromatic protons: interaction of high-power laser pulses with thin foils

- (C) 200 MeV / 10^{12} protons, angular divergence 4 deg, frequency 10 Hz
- (D) 3 GeV / 6×10^{11} protons, angular divergence 40 deg, frequency 0.1 Hz
- (E) 100 MeV / 2×10^{11} protons, angular divergence 40 deg, frequency 10 Hz

Quasi-monochromatic electrons and gamma rays: combined interactions of electrons and IR laser pulses, interaction of laser pulses with foils

- (F) 1.9 GeV / 10^9 photons, divergence 0.1 deg & 10 GeV / 2nC electrons, frequency 0.1 Hz
- (G) 1-200 MeV, narrowly collimated emission, frequency max. 0.1 Hz