

Expression of Interest

Expression of interest for the procedure concerning the acquisition of:

• Probe vibration sensors based on optomechanics cavities fabricated on the optical fiber tip in the context of the research project OPTOFER within the OR2 for the (macro)activities "Acoustic emissions sensing system" and "Seismic sensing system" - PON03PE_00155_1 CUP B68F12001050005

CeRICT scrl intends to make a market survey respecting the following principles:

- Non-discrimination
- Equal treatment
- Advertising
- Proportionality
- Transparency

for the commissioning of the above acquisition through the procedure described in the following paragraphs. Therefore, the investigation is aimed to acquire the expression of interest as provided by eligible subjects and then define a rank order of those subjects. The procedure will be open to:

• Eligible subjects who responded to "Expression of interest" and after received "Invitation letter" to submit an offer.

REFERENCES

CeRICT scrl, Via Traiano Palazzo "ex Poste" – 82100 Benevento (BN) – Italy

Tel: +39 0824 305 520/44

Pec: <u>cerict@pec.it</u>

PROCUREMENT PROCEDURE

The selection of competitors who responded to "Expression of interest" will occur by a budget procedure through the principles of better score.

Sedi: Via Traiano Palazzo "ex Poste" – 82100 Benevento | tel. 0824 305520/44 (sede legale) Via Cinthia Complesso di Monte S. Angelo - Fabbr. 8b – 80126 Napoli | tel. 081 679951/55 fax 0824 1711006 | e-mail segreteria@cerict.unina.it | PEC cerict@pec.it
Cod.Fiscale, P.IVA 01346480625 Registro Imprese Benevento | REA BN-112954 | Capitale Sociale € 154.500,00 i.v. www.cerict.it





PARTICIPATION REQUIREMENTS

Eligible subject must satisfy the following requirements established on the complexity and specificity of the service considering that the selected subject has to provide the service respecting the requirements agreed within the time established:

• Technical and professional capabilities as described in the business curriculum of the company and related to company previous experience in the sector.

If the subject have not the mentioned requirements will not be invited to the procedure.

TERM OF OFFICE

The duration of the mandate is 5 months starting from the signing of the contract.

ESTIMATED AMOUNT

The estimated amount is equal to € 39.000,00 (thirty-nine thousand /00) plus VAT.

AWARD CRITERIA

The selection of competitors will occur by a procedure through the principles of better score. The award criteria will be explained by the Technical and Administrative specification. CeRICT will award at maximum 100 points as explained below:

Technical characteristics and quality: maximum 60 points as established by a technical commission;

Better price: maximum 40 points;

SUBMISSION FORM

Eligible subjects have to send in response to the "Expression of Interest" the following papers:

- The business curriculum of the company signed by the legal representative;
- All relevant documents

All documents must be received by CeRICT scrl:

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- By mail to the office of "Via Traiano Palazzo "ex Poste" 82100 Benevento (BN) Italy" no later than <u>10 July</u> <u>2015</u>. The envelop bag must bring the reference to the call.
- By PEC to the address <u>cerict@pec.it</u> no later than <u>10 July 2015.</u>

All explanations requests can be send to <u>cerict@pec.it</u>.

HAED OF PROCEDURE

The head of procedure is Ing. MARCO PISCO:

Tel: +39 0824 305 810

E-mail: pisco@unisannio.it



Dr. Sergio Betti Managing Director CeRICT

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ATTACHED 1

PROJECT ABSTRACT

This industrial research project is sponsored by the company TOP-IN "Optoelectronic Technologies for Industry" which has been founded by MIUR (The Italian Ministry of Education, Universities and Research) under the Research and Competitiveness PON 2007-2013, aimed at the creation of Districts of New High-Tech and /or new Public-Private Partnerships. As part of a more general objective aimed at defining and developing innovative technological solutions for making the production/transport systems and logistics in Campania more competitive; the aim of this specific project is to develop a novel sensor systems based on the optical fiber technology for monitoring and diagnostics of railway infrastructure. This will allow to increase the level of safety and security, reliability and efficiency of the rail transport. These systems will be developed through the definition of prototypes of novel optical sensors and in particular through the use of optoelectronic technologies which will be able, when applied to the rail system, to provide information on the different critical parameters of interest for the railway security. In particular, the research will focus on two specific lines of action, selected to improve safety and security on the railways with, at the same time, significant impact in other related application fields. It will be developed:

- a fiber optic sensors system for the mitigation of risk associated with landslides
- a fiber optic sensors system for tunnels monitoring on the railway lines

In order to mitigate the effects of landslides, the attention will be focused on the development of prototypes of optical fiber sensors capable of measuring some precursors of landslides such as:

- Measurement of the water content in the soil
- Detection of acoustic emissions associated with fractures in the rocks
- Detection of seismic waves

Moreover, in order to increase the levels of safety and security in rail transport and to reduce the risk of accidents involving the environment, the railway infrastructure, but also humans, in this project it will be developed a novel fiber optic sensors system for multi-parametrers monitoring in tunnels. In this context, the research activities will be focused on the development of sensor systems for the detection of a limited number of parameters representing some important risk factors for both people and property, associated with different accident scenarios in the railway sector. For example, among the variables of interest, the temperature can clearly be an indicator of the occurrence of a fire; the high temperature itself may start a fire or cause a failure. Concerning the risk associated with the release of

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dangerous chemical substance , two of them have been selected: the Liquefied Petroleum Gas, LPG, (since it represents the type of material transported more frequently on trains along the railway lines) and radioactive substances (since they are a serious hazard for humans and environment). Consequently, in order to mitigate the risk of accidents, the developed prototypes of fiber optic sensors for monitoring tunnels on the railways will be able to carry out:

- Measurements of the temperature
- Monitoring and detection of LPG
- Measurements of gamma rays (dosimeter)

It is worth noting that the achievement of these objectives will also led to the strengthening of:

- scientific and technological competitiveness of the local structures involved in the project
- industrial competitiveness of the companies involved, encouraging the development of new products for both national and international market.

