

**Advance Contract Award Notice 21-58059**

Title: [Production and performance validation of an improved duplicate of the NRC Free-Stream Anemometer](#)

1. An explanation of what an Advanced Contract Award Notice (ACAN) is:

An ACAN is a public notice indicating to the supplier community that a department or agency intends to award a contract for goods, services or construction to a pre-identified supplier, thereby allowing other suppliers to signal their interest in bidding, by submitting a statement of capabilities. If no supplier submits a statement of capabilities that meets the requirements set out in the ACAN, on or before the closing date stated in the ACAN, the contracting officer may then proceed with the award to the pre-identified supplier.

2. Definition of the requirement:

The National Research Council of Canada (NRC) requires the services of an organization specialized in optics, photonics and lasers to produce an improved duplicate of the NRC Free-Stream Anemometer (FSA) prototype that Institut National d'Optique (INO) developed, upgraded and improved in collaboration with NRC over a period of five years. The FSA is a wind-measuring, compact, short-range Doppler LiDAR used onboard traveling vehicles. NRC is the owner of this first prototype. In the process of its development, both INO and NRC have developed foreground Intellectual Property (IP) and applied background IP to produce this proprietary technology, both in terms of hardware and software. Once the new FSA is produced, the contractor is required to subject it to a series of tests aimed at verifying the system's performance and to submit a performance report. In addition, an updated user manual will be supplied. The new FSA prototype must be fully compatible with NRC's current FSA, in terms of optoelectronics and mechanical design, software and user interface.

3. Criteria for assessment of the Statement of Capabilities (Minimum Essential Requirements):

- Enterprise has the knowledge and mastery of the proprietary (INO-NRC) design of the first FSA prototype required to fabricate, assemble, program and test an improve duplicate of NRC's current FSA.
- Enterprise is specialized in optics, photonics and lasers
- Enterprise has a substantial portfolio of patents in the fields of optics, photonics, lasers, LiDAR and remote sensing of aerosols.
- Enterprise has developed and produced compact, short-range, wind-measuring Doppler-LiDAR systems
- Enterprise has a team of researchers/engineers specialized in LiDAR technology development
- Enterprise offers integrated service: in-house development and design, fabrication, testing and validation of LiDAR systems. This includes design of circuits and modules, software, prototyping, pre-production and production of short series.
- Expertise in modelling light propagation through the aerosol-containing atmosphere
- Expertise in remote-sensing and particle-sizing of aerosols with LiDAR.
- Expertise in LiDAR signal processing with FPGA (Field-Programmable Gate Array) or GPU
- Documented experience of LiDAR development for remote sensing of aerosols
- Documented experience of LiDAR development for wind measurement applications.

4. This procurement is subject to the following trade agreement(s):

- World Trade Organization - Agreement on Government Procurement (WTO-AGP)
- North American Free Trade Agreement (NAFTA)

5. Justification for the Pre-Identified Supplier:

Pursuant to the Government Contracts Regulations of the Financial Administration Act, the contract is being awarded because it has been determined that only one vendor is capable of performing the contract for reasons listed herein. The following exception(s) to the Government Contracts Regulations is (are) invoked for this procurement under subsection 6 (d)"only one person is capable of performing the work" and Limited Tendering Reasons contained in the Trade Agreements 1016 b.

Institut National d'Optique (INO) has been selected because they are the only enterprise qualified to reproduce the proprietary FSA technology that they developed in collaboration with NRC and in which they own foreground Intellectual Property. By definition, their design is not reproducible by a third party.

6. Ownership of Intellectual Property:

Ownership of any Foreground Intellectual Property arising out of the proposed contract will vest in the Contractor.

7. The proposed contract is for a period of 8 months from **20 October 2021 to 20 June 2022**.

8. Cost estimate of the proposed contract:

The estimated value of the contract is \$ 374,000.00 plus applicable taxes.

9. Name and address of the pre-identified supplier:

Institut National d'Optique (INO), 2740 Rue Einstein, Québec, Québec, G1P 4S4

10. Suppliers' right to submit a statement of capabilities:

Suppliers who consider themselves fully qualified and available to provide the goods and services described in the ACAN, may submit a statement of capabilities in writing to the contact person identified in this notice on or before the closing date of this notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

11. Closing date for a submission of a statement of capabilities

**October 20<sup>th</sup>, 2021 at 2:00pm EDT**

12. Inquiries and statements of capabilities are to be directed to:

Katie Homuth  
Procurement Officer  
Finance and Procurement Services (FPS)  
National Research Council Canada  
E-mail: [Katie.Homuth@nrc-cnrc.gc.ca](mailto:Katie.Homuth@nrc-cnrc.gc.ca)