

Call for Expressions of Interest:
*Monitoring Technologies for
Northern & Oil Sands Environments*

Application Deadline: 25-June 2012

LOOKNorth is soliciting Expressions of Interest (EOIs) from small and medium sized enterprises (SMEs) based in Canada who have developed remote sensing technologies that can provide significant positive impacts for the sustainable development of Canada's Northern and Oil Sands resources.

About LOOKNorth

LOOKNorth is a national Centre of Excellence for Commercialization and Research (CECR) under the Government of Canada's Network of Centres of Excellence program (www.nce-rce.gc.ca). LOOKNorth supports responsible, sustainable development of Canada's Northern natural resources through implementation of innovative remote sensing technologies.

Funding for LOOKNorth is provided by the Government of Canada (through the CECR Program) and by the Province of Newfoundland & Labrador (through the Department of Innovation, Business and Rural Development and the Research & Development Corporation).

Program Description

LOOKNorth's Technology Validation Program (TVP) promotes deployment of remote sensing technologies to provide breakthroughs in the responsible, sustainable development of Canada's Northern natural resources and Oil Sands. The TVP demonstrates and validates remote sensing and other monitoring technologies for use in the North and Oil Sands, and is intended as a precursor to long-term implementation of these technologies to support resource development. Sectors of interest are oil & gas, mining, hydro-electric power generation, and related transportation industries.

Validation projects are identified through a proposal process. LOOKNorth solicits EOIs from Canadian SMEs on a defined theme or technical area of interest addressing the information needs of the resource sector. Successful EOIs will be invited to submit a proposal. R&D activities are not eligible for funding.

Funding for successful proposals will be administered through a non-repayable contribution agreement.



2012 Open Call for Expressions of Interest

Overview

This EOI call will lead to a maximum of three (3) remote sensing validation projects with environmental themes identified in the Priority Development Areas below. These areas have been identified through sector assessments conducted with the oil and gas, mining, and hydro-electric power generation industries.

Priority Development Areas

- **Theme 1: Water Characterization**
 - **Water Quality**
 - Detection and quantification of contamination of water supplies:
 - Sediments, chlorophyll, brine content and hydrocarbons.
 - **Water Quantity**
 - Baseline quantification of surficial water levels and flows:
 - Current quantification and historical estimates of sloughs, wetlands, lakes and rivers.
- **Theme 2: Air Characterization**
 - **Air Quality**
 - Baseline and monitoring of air quality:
 - Green house gases, methane and ozone.
 - Characterization and tracking of airborne contaminants or industrial by-products and their interaction with the ecosystem.
- **Theme 3: Trace Hydrocarbon Detection**
 - **Leak Detection**
 - Detection of the presence of oil and/or oil-saturated earth under snow cover.
 - **Seepage Detection**
 - Detection of onshore carbon dioxide seeps.
 - Detection and baselining of hydrocarbon gas seeps, onshore and/or offshore.



Mandatory Requirements

This section describes the mandatory requirements for the EOI. Submissions must meet all mandatory requirements to be considered for proposal submission.

- **Technology readiness:**
The project must employ a pre-commercial technology or service, or the application of a technology that has not been demonstrated in a Northern or Oil Sands environment. The solution must be ready for commercial demonstration to industry. In general the technology should be at a [Technology Readiness Level 7](#).
- **Co-Funding Requirement:**
At least 50% cash or in-kind co-funding must be provided from the industry sponsor and/or the submitter. In-kind co-funding is limited to incremental activities directly associated with the project. LOOKNorth reserves the right to determine the reasonableness of the in-kind contributions based on the project details.
- **Application area:**
The solution must be applicable to Northern resource development in Canada's Northern or Oil Sands. For this EOI, the North refers to the region from the Canadian Arctic to the [southern extent of discontinuous permafrost](#).
- **Remote sensing technology:**
The project must employ a remote sensing technology or remote sensing based data product. *Remote sensing* refers to monitoring from a distance with no local infrastructure requirements. Example platforms include satellite, aircraft and other aerial vehicles; example sensors include radars, optical and laser.
- **Duration:**
The project must be less than two years.
- **Eligible organizations:**
The bidder must be an SME (*i.e.*, having 500 full-time employees or fewer and revenue less than \$50M per annum) based in Canada.
- **Location:**
The demonstration location must be in or representative of either the Canadian Northern or Oil Sands environments, depending on the intended application area.
- **Industry sponsor:**
The submitter must have a Canadian industry sponsor from one of the following sectors:
 - Oil & Gas
 - Mining
 - Hydro-electric power generation
 - Transportation related to theseA letter of support is required from the sponsor at the proposal stage, indicating the following:
 - the anticipated impact of the technology or service
 - readiness to adopt a successfully demonstrated technology or service
 - co-funding commitment to the project.
- **Environmental Assessment Checklist:**
The Environmental Assessment Checklist included in the [Environmental Assessment Process](#) must be filled out and submitted with the EOI.

Evaluation Criteria

The EOI must satisfy the mandatory requirements stated above.

EOIs meeting the mandatory requirements will be assessed and ranked according to their Technical and Business & Industry Merit Criteria described below. For a more detailed description of the criteria, please refer to the EOI submission form 'LN-EOI Submission Form Fall 2011.pdf'. *Note that this fillable PDF form limits the amount of space for each response. Additional material outside of the space given on the form or appended to it will not be considered.*

LOOKNorth is seeking projects that have significant positive impacts on sustainable resource development, SMEs and Northern communities. Demonstrable impacts are the leading criteria for the selection of projects for funding.

TECHNICAL CRITERIA		
Description	Point Criteria	Max.
1. Information Gap	Demonstrate an understanding of the issues by describing the challenge for the industry.	25pts
2. Suitability of the Proposed Solution	a) Technical solution: Describe how the proposed solution will overcome the challenge.	25pts
	b) Technology limitations: Describe the limitations of the base technology and the proposed solution in addressing the challenge.	10pts
3. Industry Gap	Describe the current solutions or sources of information and indicate why these are inadequate to meet industry needs.	20pts
		80pts

BUSINESS CASE CRITERIA		
Description	Point Criteria	Max.
1. Impact of a Successful TVP	Describe the contribution to: a) sustainable resource development; b) benefit to SME; and c) socio-economic benefits to Northern communities.	60pts
2. Industry Sponsor Support	A commitment of 50% or more co-funding from the industry sponsor is preferred. However, a combination from the industry sponsor and project proponent co-funding will be accepted when necessary.	40pts
3. Corporate Experience	The proponent should demonstrate a track record of successfully completing similar complex and/or remote sensing projects over the past five (5) years.	20pts
		120pts

EOIs which do not meet the mandatory criteria or which score under 100 points will not be invited to submit a proposal.

Intellectual Property

Any intellectual property that will be developed during the course of projects arising from this solicitation will remain with the originator.

Eligible Costs

LOOKNorth will co-fund up to a maximum of \$200,000 of eligible costs. Eligible costs are defined in the Tri-Agency Financial Administration Guide which can be found at:

http://www.nserc-crsng.gc.ca/Professors-Professeurs/FinancialAdminGuide-GuideAdminFinancier/FundsUse-UtilisationSubventions_eng.asp

As an example, eligible costs include reasonable costs associated with performing the Project, such as: salaries for technical and professional staff (i.e., payroll costs plus a maximum of 20% burden); materials and supplies; and travel and accommodations for on-site demonstrations/validations. Please note that costs related to Research and Development are NOT considered eligible.

Schedule

20 April 2012	Expression of Interest (EOI) Publication
25 June 2012	Deadline for EOI submission
07 July 2012	Invitation of full proposals
28 September 2012	Deadline for proposal submission
30 November 2012	Notification of results and funding agreement negotiation

Submission Instructions

Interested proponents should fill in the EOI template and Environmental Assessment Checklist located at the LOOKNorth website. Instructions are included with the EOI template located at: www.looknorth.org/typ

Submissions are accepted until 23:59 hrs, June 25th, 2012, Newfoundland Time via proposals@LOOKNorth.org or fax to 709-864-4021.

Clarifications

Please submit any requests for clarifications to proposals@LOOKNorth.org. LOOKNorth will respond to all questions, however, only clarifications relevant to other submitters will be published on the website at the address above.

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