

## 1. Advance Contract Award Notice (ACAN)

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

Environment and Climate Change Canada's Enforcement Branch (ECCC EB) has a requirement to assess whether commercial-off-the-shelf (COTS) business financial data, combined with an appropriate predictive analytics modelling has the potential to improve the efficiency of inspection targeting for environmental enforcement activities.

To meet this need, ECCC needs to engage a contractor that has the access to a large database of Canadian companies of all sizes and the expertise to develop predictive analytics models based on the data available and the historical performance of those companies with respect to their conformance with environmental regulations.

### 2.1 Tasks

The tasks required of the Contractor will include the following:

- i) Perform entity matching, append COTS Data, and suggest enhancements:  
The Contractor must match ECCC records sourced from Enforcement data sets to its database records and optimize the match rules to ensure an accurate identity resolution process for ECCC. The source records will consist of an anonymized list of firms that are compliant and non-compliant with Acts enforced by ECCC EB.
- ii) Perform exploratory data analysis to identify predictors for facility environmental compliance and inspection targeting.  
For all ECCC records matched at a high confidence level to the COTS database company identifier, the Contractor will append the COTS Data to conduct an exploratory data analysis, and for development of inspection targeting predictors. The exploratory data analysis will be used to clarify those assets (database characteristics) which are most predictive.
- iii) In collaboration with a team of EB experts, the Contractor will support validation of inspection targeting predictors, and propose an overall plan to integrate predictive models into operations

## 2.2 Deliverables:

- i) The Contractor will deliver a report providing detailed information about the results of the automated matching process and recommendations on processing non-matches;
- ii) The Contractor will provide for review and use by ECCC during the study period a data file consisting of COTS data match metadata, business entity data and standard predictive scores (limited to Delinquency and Financial Stress);
- iii) Following the completion of matching and resolution of ECCC data, the Contractor will meet with ECCC and provide a summary report outlining the results and key findings of the matching process which will include the following measures: the number of entities successfully matched using automated processes, the number of entities requiring manual research, and the number of duplicate entities, and may include risk and compliance insights and/or recommendations to improve entity resolution developed through the matching and resolution process;
- iv) The Contractor will deliver a PowerPoint presentation and .ppt file with relevant predictive insights and details/results;
- v) The Contractor will collaborate with ECCC to build a high level return on investment from operations optimization based on predictors;
- vi) The Contractor will provide a prioritized set of validated predictors and associated measures which would allow ECCC to assess the strength of the model(s); and,
- vii) Based on the results, propose an approach to use predictors for ongoing ECCC operations optimization.

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

Any interested supplier must demonstrate by way of a statement of capabilities that it meets the following requirements:

- 3.1 The supplier has access to an extensive Canadian database containing financial information on Canadian companies (both public and privately owned). The data on each company must be sufficiently comprehensive to allow the development of a variety of analytic models to identify the variables that would contribute to the reliability of its ability to predict potential conformance to environmental regulations .

The database must:

- i) include for each corporate entity the following information at a minimum :
  - Annual Sales,
  - Total Employees,
  - Legal Structure,
  - Time in Operation,
  - Industry (the North American Industry Classification System (NAICS code to six digits),
  - Names of Corporate officers, and
  - Alternate names.
- ii) provide the ability to identify regulatory compliance issues, liens, litigation, bankruptcy, etc. associated to the business, parent, subsidiary or management.
- iii) be able to link branches/sites, with parents and subsidiaries
- iv) contain sufficient records to identify corresponding trends within industry clusters and competitors

3.2 The supplier must be able to link the database holdings to ECCC records using only a name and address as recorded in ECCC system, and provide statistical measures of confidence of matches to database records

3.3 The supplier must provide analysts that

- i) are skilled in the creation of predictive analytics models
- ii) have experience conducting similar projects for regulatory organizations, and
- iii) have postgraduate degrees with specialization in statistics, data science, operations research or econometrics.

4. Name and address of the pre-identified supplier

The D&B Companies of Canada ULC  
Suite 305  
6750 Century Ave  
Mississauga ON L5N 0B7

5. Justification for the Pre-Identified Supplier

D&B have the analytical resources that are capable of developing the required models with access to, and an in-depth knowledge of, the characteristics of the D&B data. The data provided by D&B is unique and proprietary and can only be provided by D&B. D&B's global commercial database contains more than 230 million business records covering approximately 200 countries which is enhanced by a proprietary quality control process. The data includes corporate demographic data and global corporate family linkage information derived through the proprietary DUNS number and associated proprietary scoring information and info on suits, liens and judgements.

6. Government Contracts Regulations Exception(s)

The following exception to the *Government Contracts Regulations* is invoked for this procurement under subsection (d) – "only one person is capable of performing the work".

7. Exclusions and/or Limited Tendering Reasons

The contract is proposed under the Government Contracting Regulations, Section 6 (d) that states "only one person or firm is capable of performing the contract".

8. Ownership of Intellectual Property

Canada intends to retain ownership of any Foreground Intellectual Property arising out of the proposed contract on the following grounds: where the Foreground IP consists of material subject to copyright, with the exception of computer software and all documentation pertaining to that software.

9. Period of the proposed contract or delivery date.

The final deliverable must be received and accepted by March 29, 2018

10. Suppliers' right to submit a statement of capabilities

Suppliers who consider themselves fully qualified and available to provide the goods, services or construction 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

The closing date and time for accepting statements of capabilities is November 30 2017 at 2pm.

12. Inquiries and submission of statements of capabilities

Inquiries and statements of capabilities are to be directed to:

Barry McKenna

Telephone: 819-938-3464

E-mail: [Barryjoseph.mckenna@canada.ca](mailto:Barryjoseph.mckenna@canada.ca)