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11 Laurier St. / 11, rue Laurier  
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Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**LETTER OF INTEREST  
LETTRE D'INTÉRÊT**

Comments - Commentaires

Vendor/Firm Name and Address  
Raison sociale et adresse du  
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**Issuing Office - Bureau de distribution**

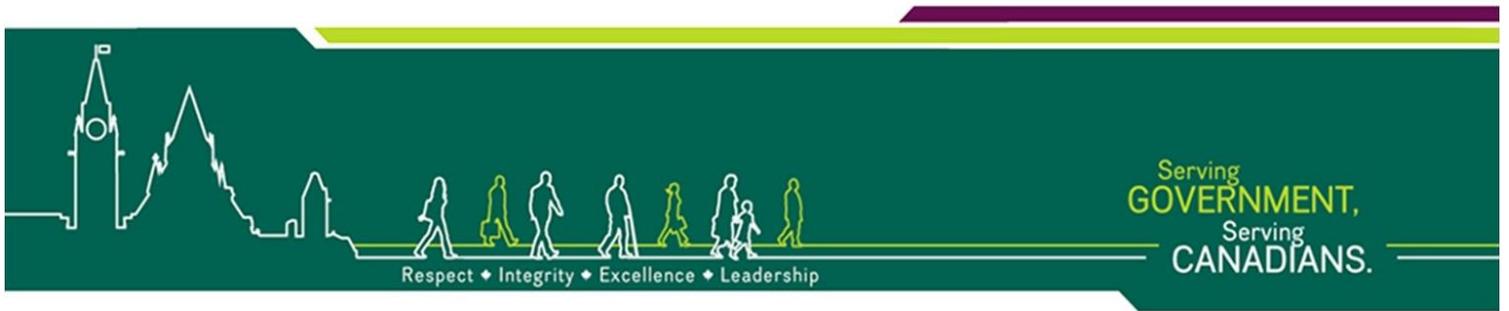
Land Projects and Communication System Support  
Division/Div des projets terrestres et support de systèmes  
de communication  
11 Laurier St. / 11, rue Laurier  
8C2, Place du Portage, Phase III  
Gatineau  
Québec  
K1A 0S5

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|---|--|
| <b>Title - Sujet</b> (LC4ISR) system  |  |
| <b>Solicitation No. - N° de l'invitation</b><br>W8486-200731/B  | <b>Date</b><br>2021-07-28  |
| <b>Client Reference No. - N° de référence du client</b><br>W8486-200731   | <b>GETS Ref. No. - N° de réf. de SEAG</b><br>PW-\$\$RA-055-28295 |
| <b>File No. - N° de dossier</b><br>055ra.W8486-200731   | <b>CCC No./N° CCC - FMS No./N° VME</b>                           |
| <b>Solicitation Closes - L'invitation prend fin</b><br><b>at - à 03:00 PM</b> Eastern Standard Time EST<br><b>on - le 2022-12-30</b> Heure Normale de l'Est HNE               |  |
| <b>F.O.B. - F.A.B.</b><br><b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>              |  |
| <b>Address Enquiries to: - Adresser toutes questions à:</b><br>Abdulkadir, Nadir  | <b>Buyer Id - Id de l'acheteur</b><br>055ra                      |
| <b>Telephone No. - N° de téléphone</b><br>(819) 664-8121 ( )  | <b>FAX No. - N° de FAX</b><br>( ) -                              |
| <b>Destination - of Goods, Services, and Construction:</b><br><b>Destination - des biens, services et construction:</b><br><br>Specified Herein<br>Précisé dans les présentes |  |

Instructions: See Herein

Instructions: Voir aux présentes

|  |  |
|--|--|
| <b>Delivery Required - Livraison exigée</b><br>See Herein – Voir ci-inclus   | <b>Delivery Offered - Livraison proposée</b> |
| <b>Vendor/Firm Name and Address</b><br><b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>   |  |
| <b>Telephone No. - N° de téléphone</b><br><b>Facsimile No. - N° de télécopieur</b>   |  |
| <b>Name and title of person authorized to sign on behalf of Vendor/Firm</b><br><b>(type or print)</b><br><b>Nom et titre de la personne autorisée à signer au nom du fournisseur/<br/>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b> |  |
| <b>Signature</b>   | <b>Date</b>                                  |



**Land Command, Control, Communication, Computers,  
Intelligence, Surveillance and Reconnaissance (Land C4ISR)  
Sustainment**

**W8486-200731/B**

**REQUEST FOR INFORMATION (RFI)**

**FOR**

**DEPARTMENT OF NATIONAL DEFENCE**

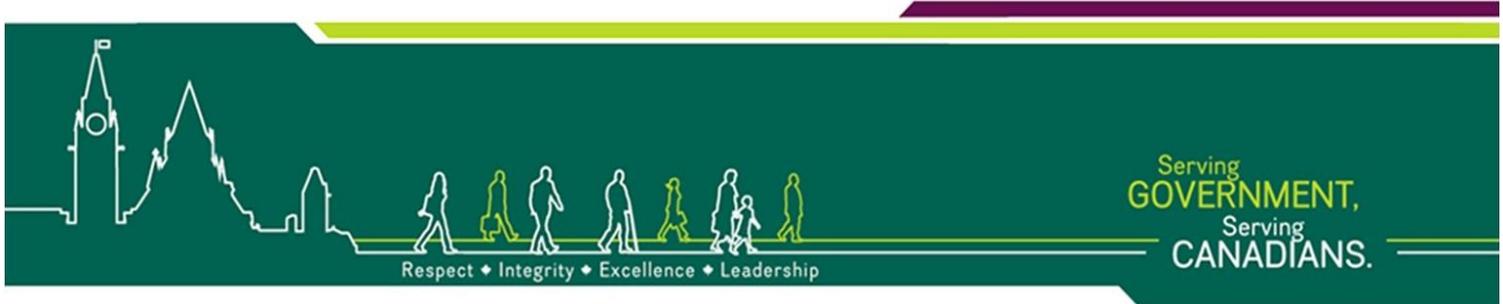


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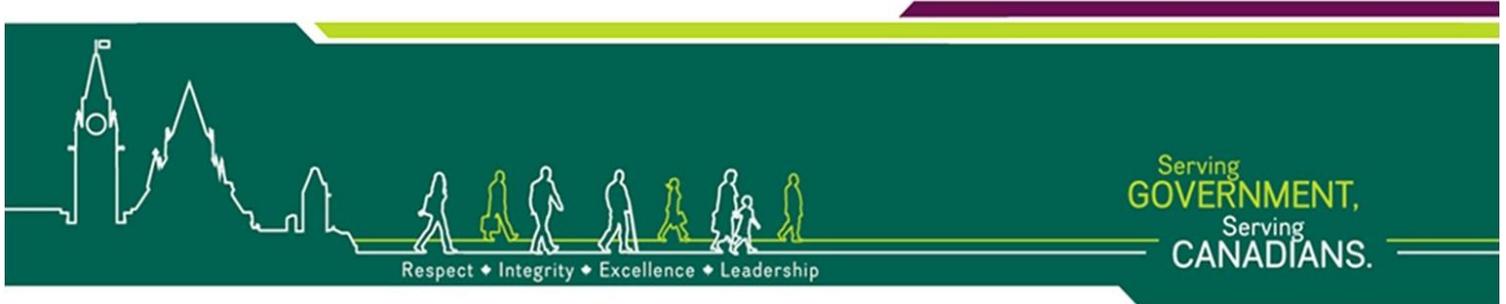
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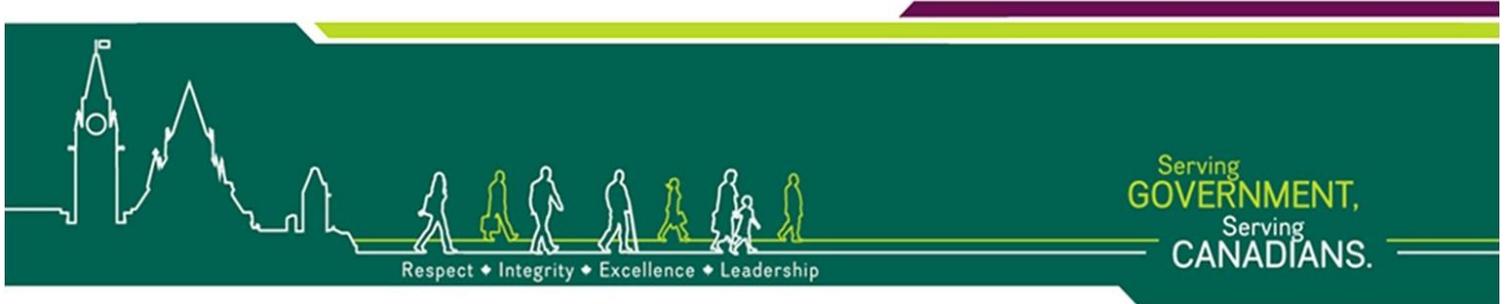


## 1. Purpose

- 1.1 This Request for Information (RFI) is a follow-on industry engagement process to the Letter of Interest (LOI) W8486-200731/A that was issued in August 2020.
- 1.2 The purpose of this RFI is to inform Industry of an upcoming competitive procurement process that will be conducted by Public Services and Procurement Canada (PSPC) on behalf of the Department of National Defence (DND). The requirement is for the sustainment of the Land Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (Land C4ISR), with current requirements identified in the LOI W8486-200731/A issued in August 2020.
- 1.3 The intent of the RFI process is to further engage Industry in a consultative process by seeking industry feedback via the responses to questions identified in Annex B to gain a better understanding of industry's capability and practicality of the service requirements and envisioned future sustainment of Land C4ISR. Please review Annex A for details of the future sustainment requirements, which pertain to the proposed four new functional groupings only.
- 1.4 The main objectives of this consultative process with industry are to:
  - a. Provide industry with further additional information associated with this solicitation process.
  - b. Engage industry through a continuous engagement opportunity with Industry, which may include sharing the evolution of the sustainment solution through additional questions, one-on-one meetings, an industry day, and draft RFP release.
  - c. Inform and engage industry on the Industrial and Technological Benefits Policy, including Value Proposition.
  - d. Request feedback from suppliers regarding questions posed in Annex B.
- 1.5 To ensure that the sustainment requirements proceed with an appropriate scope and budget, the information received from Industry will be used to develop accurate requirements mapped to accurate costing models.
- 1.6 Interested suppliers are encouraged to review Annex A and B, and provide feedback to the PSPC Contracting Authority identified herein.

## 2. Nature of the Request for Information

- 2.1 This RFI is neither a call for tender nor a Request for Proposal (RFP). No agreement or contract will be entered into based on this RFI. The issuance of this RFI is not to be considered in any way



a commitment by the Government of Canada, nor as authority to potential respondents to undertake any work that could be charged to Canada. This RFI is not to be considered as a commitment to issue a subsequent solicitation or award contract(s) for the work described herein.

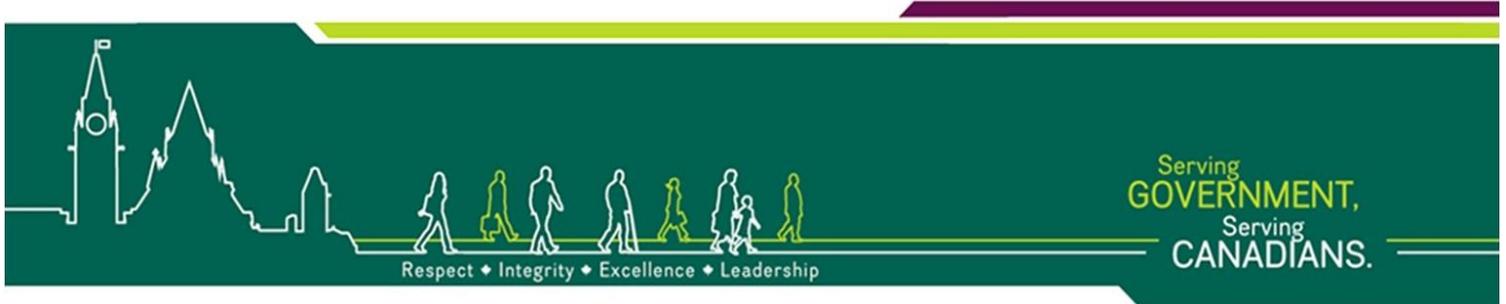
- 2.2 Although the information collected may be provided as commercial-in-confidence (and, if identified as such, will be treated accordingly by Canada), Canada may use the information to assist in drafting performance specifications (which are subject to change) and for budgetary purposes.
- 2.3 Respondents are encouraged to identify, in the information they share with Canada, any information that they feel is proprietary, third party or personal information. Please note that Canada may be obligated by law (e.g., in response to a request under the Access of Information and Privacy Act) to disclose proprietary or commercially-sensitive information concerning a respondent (for more information: <http://laws-lois.justice.gc.ca/eng/acts/a-1/>).
- 2.4 Respondents are asked to identify if their response, or any part of their response, is subject to the Controlled Goods Regulations.
- 2.5 Participation in this RFI is encouraged but is not mandatory. There will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result of this RFI. Similarly, participation in this RFI is not a condition or prerequisite for the participation in any potential subsequent solicitation.
- 2.6 Respondents will not be reimbursed for any cost incurred by participating in this RFI.
- 2.7 The RFI closing date published herein is not the deadline for comments or input. Comments and input will be accepted any time up to the time when/if a follow-on solicitation is published.

### **3. Requirement**

- 3.1 The requirements are described in Annex A, attached herewith.

### **4. Background Information**

- 4.1 The potential follow-on LC4ISR solicitations will be published on (GETS). A new Government Electronic Tendering System GETS (CanadaBuys) is scheduled to launch in Summer 2021 and will replace [BuyandSell.gc.ca/tenders](http://BuyandSell.gc.ca/tenders).
- 4.2 In Summer 2021, following a successful beta period, CanadaBuys will become the official source for tenders and awards and [Buyandsell.gc.ca/tenders](http://Buyandsell.gc.ca/tenders) will be turned off and will no longer display any tenders and awards information to the public. The full transition of BuyandSell to CanadaBuys is targeted for Summer 2022.



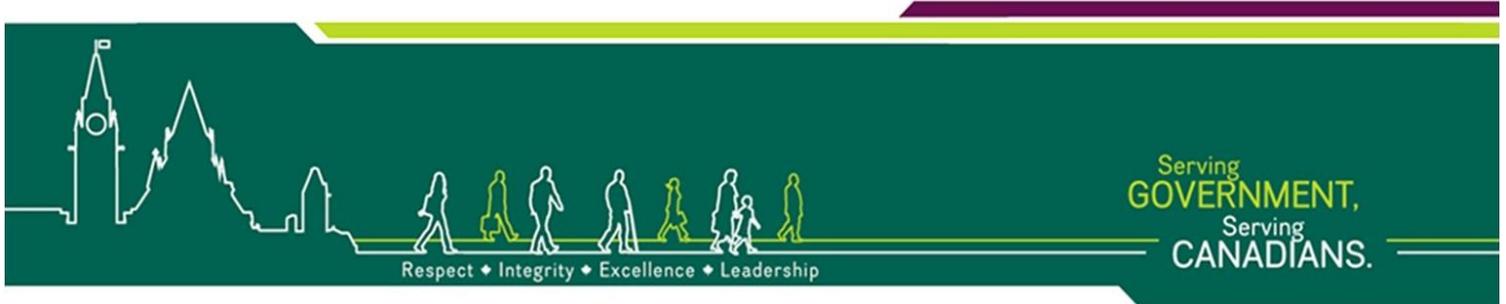
- 4.3 Supplier registration is now open. Suppliers are invited to register for a free account in SAP Ariba at any time: <https://canadabuys.canada.ca/en/getting-started>

## 5. Security Requirements

- 5.1 There are no security requirements associated with this RFI, however, there will be security requirements associated with any follow-on competitive procurement process. Additional information on the security requirements will be communicated through RFI amendments, as necessary.
- 5.2 It is anticipated that the follow-on competitive procurements process(es) will require that the bidder, at a minimum, to hold a valid Facility Security Clearance at the level of NATO Secret and Top Secret, with approved Document Safeguarding at the level of NATO Secret and Production Capabilities at the level of Secret. As for the bidder's personnel, security clearances will range from Reliability Status to NATO Top Secret clearance. Respondents may familiarize themselves with potential security provisions through the Communications Security Establishment (CSE) website (<https://www.cse-cst.gc.ca>) and the PSPC website (<http://www.tpsgc-pwgsc.gc.ca/esc-src/index-eng.html>). Any future procurement actions may also include additional security requirements as part of the mandatory criteria for contract award.
- 5.3 Should Industry require information on personnel and organizational security screening or security requirements, please refer to the Canadian Industrial Security Directorate (CISD), Industrial and Security Program of Public Services and Procurement Canada website available at <http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html>.
- 5.4 Due to the nature of Land C4ISR, it is imperative that the ability to sustain Land C4ISR remains within Canada. It is anticipated that a National Security Exception will be sought for the follow-on RFPs, where applicable.

## 6. Legislation, Trade Agreements, and Government Policies

- 6.1 The following is indicative of some of the legislation, trade agreements and government policies that may impact any follow-on solicitation(s) related to the long-term sustainment of the Land C4ISR:
- a. Canada Free Trade Agreement (CFTA)
  - b. Defence Production Act (DPA)
  - c. Industrial and Technical Benefits (ITBs)
  - d. Controlled Goods Program (CGP)



- e. Federal Contractors Program for Employment Equity (FCP-EE)
- f. PWGSC Policy on Green Procurement
- g. Gender-based Analysis Plus (GBA+).

#### 6.2 Industrial and Technological Benefits and Value Proposition

The Defence Procurement Strategy (DPS) applies to the Land C4ISR Sustainment. As part of the DPS, Canada is seeking information on potential economic leveraging opportunities for the Land C4ISR Sustainment. Respondents should be aware that any contracts entered into as a result of any follow-on RFP/s may contain economic benefit requirements, which may include the Industrial and Technological Benefits (ITB) Policy, including Value Proposition (VP). Please refer to LOI W8486-200731/A for more details on the aspects of ITBs and VP.

Under the ITB Policy, companies awarded defence procurement contracts are required to undertake business activities in Canada, equal to the value of the contract. In addition, a core element of the ITB Policy is a rated and weighted Value Proposition. Further information regarding the ITB Policy can be found at [www.ic.gc.ca/itb](http://www.ic.gc.ca/itb).

#### 6.3 Controlled Goods Program (CGP)

This RFI is not subject to the CGP, however, follow-on competitive processes will likely be, as the Land C4ISR sustainment will require access to controlled goods. Respondents are encouraged to familiarize themselves with the provisions of the CGP at their earliest opportunity. For information pertaining to the CGP, please refer to the PSPC website at

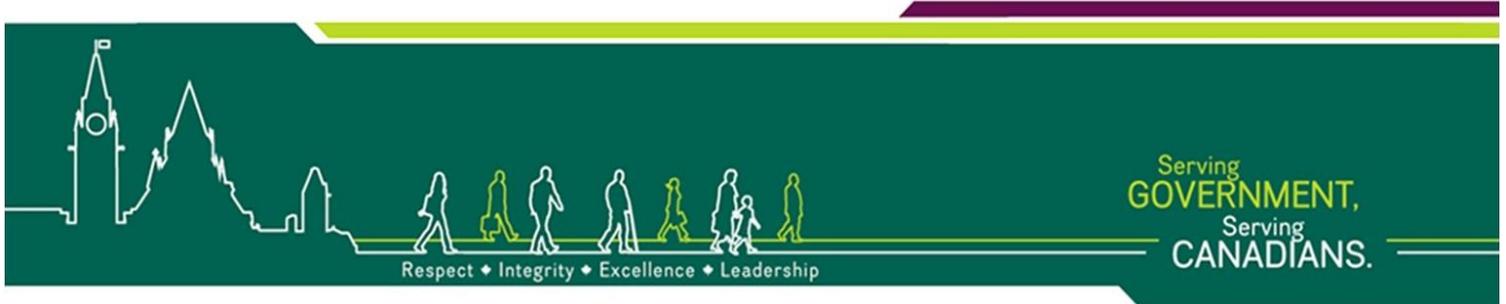
<http://www.tpsgc-pwgsc.gc.ca/pmc-cgp/enregistrement-register-eng.html>

#### 6.4 Federal Contractors Program for Employment Equity (FCP-EE).

The FCP-EE will apply to the follow-on competitive procurement process. Further details on the FCP-EE will be communicated on the GETS, available at <https://buyandsell.gc.ca/>, as part of the follow-on procurement process.

#### 6.5 Green Procurement.

Respondents are requested to identify and cost potential areas of development, manufacturing and/or project delivery that leverage environmentally friendly standards and/or processes. For more information on the Green Procurement Policy, consult the Treasury Board Secretariat website <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=3257>



## 7. Schedule

7.1 In providing feedback, the following tentative schedule should be utilized:

- Request for Information (RFI) posting July 28, 2021
- Industry's response to Questions in Annex B August 30, 2021
- RFI Closed December 30, 2022 at 3:00PM

## 8. Important Notes to Respondents

8.1 Interested Respondents may submit their responses to PSPC Contracting Authority preferably via email, at the following e-mail address:

[DivisionQD-QDDivision@tpsgc-pwgsc.gc.ca](mailto:DivisionQD-QDDivision@tpsgc-pwgsc.gc.ca)

Attention:

Mr. Jean-François Goyette  
Contracting Authority  
Defence Communications Major Projects and Sustainment Division  
Electronics, Munitions and Tactical Systems Procurement Directorate  
Public Services and Procurement Canada  
613-219-0728

8.2 All correspondence must include the RFI number in the subject line.

8.3 A point of contact for the Respondent should be included in the package.

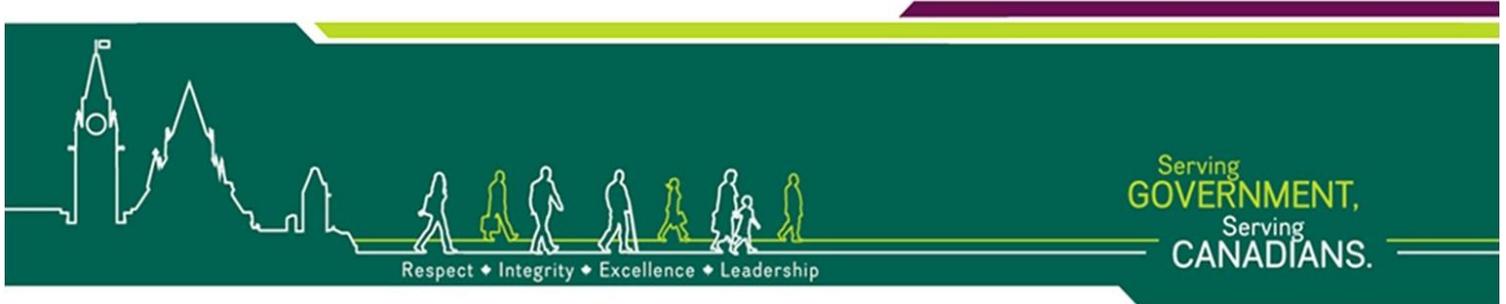
8.4 Changes to this RFI may occur and will be advertised on the GETS. Canada asks Respondents to visit [Buyandsell.gc.ca](http://Buyandsell.gc.ca) regularly to check for changes, if any.

## 9. Closing date for the RFI

9.1 Responses to the questions listed in Annex B are to be submitted to the PSPC Contracting Authority identified above, on or before August 30, 2021.

9.2 The RFI will remain open to allow ongoing engagement opportunities with Industry after the above-mentioned submission date.

9.3 The RFI will be closed upon release of the follow-on draft RFP(s).



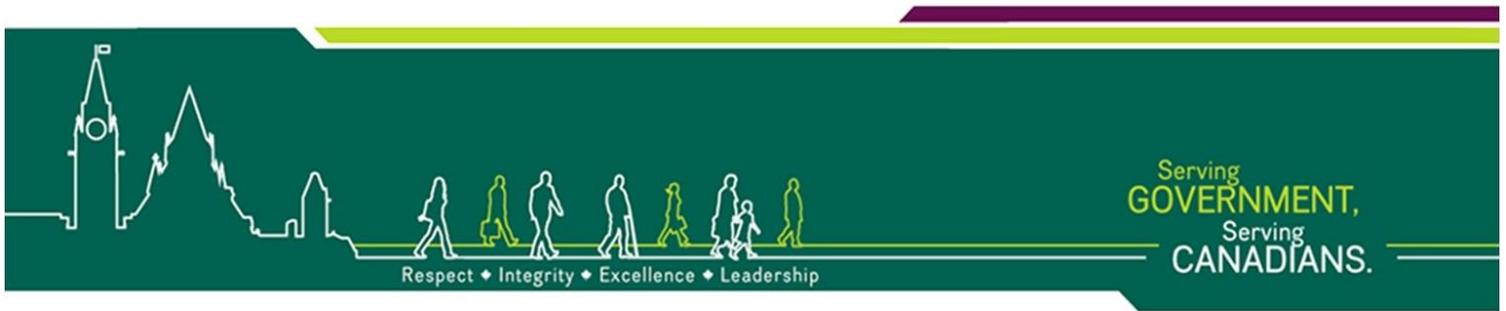
## 10. Industry Feedback

- 10.1 Supplier's feedback and questions must be submitted in writing to the Contracting Authority at [DivisionQD-QDDivision@tpsgc-pwgsc.gc.ca](mailto:DivisionQD-QDDivision@tpsgc-pwgsc.gc.ca). E-mail size must not exceed 8 MB. Feedback may be submitted in either official language of Canada.
- 10.2 All correspondence must include the RFI number in the subject line. A point of contact for the Respondent should be included in the package.
- 10.3 Respondents should reference as accurately as possible the numbered item of the RFI to which the enquiry relates. Care should be taken by Respondents to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the supplier do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all suppliers. Enquiries not submitted in a form that can be distributed to all suppliers may not be answered by Canada.
- 10.4 Any marketing or promotional information submitted as part of the responses may not be reviewed.
- 10.5 Canada reserves the right to seek clarification from respondents on information provided, either by telephone and/or in writing.
- 10.6 Canada will have the right to accept or reject any or all suggestions.
- 10.7 Canada will publish answers to supplier's questions periodically by issuing amendments to the RFI.
- 10.8 Amendments to the RFI may be issued to seek additional input from industry, as necessary.

## 11. Procurement Team

- 11.1 The procurement team is comprised of representatives of the DND, ISED and PSPC. Canada reserves the right to hire any independent consultant or use any Government resources that it considers necessary to review any response. Any consultants utilized will be subject to a Non-Disclosure Agreement and a Non-Compete Agreement.

## 12. Fairness Monitor



- 12.1 Canada has engaged the services of an organization to act as an independent, third-party Fairness Monitor (FM) for the Land C4ISR Sustainment solicitation process.
- 12.2 PSPC's fairness monitoring process provides independent assurance that specific PSPC procurements are conducted in a fair, open and transparent manner.
- 12.3 The role of the FM is to observe all or part of a procurement process, to provide related feedback on fairness issues to the procurement team and to PSPC's Departmental Oversight Branch, and to provide an unbiased and impartial opinion on the fairness of the observed procurement process.
- 12.4 The FM will be given access to industry responses, questions and related correspondence with respect to this RFI and any follow-on Draft RFP and RFP.

## **ATTACHEMENTS:**

Annex A: Future Sustainment Requirements

Annex B: Questions for Industry

**ANNEX A**  
**FUTURE SUSTAINMENT REQUIREMENTS**

**Land Command Control Communication Computers  
Intelligent Surveillance Reconnaissance**

**(Land C4ISR)**

**Department of National Defence**

## 1. CONTEXTUAL DEFINITIONS AND TERMINOLOGY

1.1. C4ISR – Command, Control, Communication, Computers, Intelligence, Surveillance, Reconnaissance. A concept that integrates command, communication and intelligence activities to enhance decision making.

1.2. Land C4ISR Capability: Land C4ISR Capability is a fully integrated, secure network of Tactical Communications (TacComms) systems that transport Tactical Command, Control and Information System (TacC2IS) services to provide the Canadian Army with the information and situational awareness (SA) they require to make effective and timely Command and Control decisions about assigned forces and weapon systems engaged in land operations. This also includes SA of the battlefield by accessing and analysing tactical information collected by Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR) systems.

1.3. Actor - Persons, systems and devices that interact with the LC4ISR SoS. The following information comprises the details of an actor: Role/Title; what they do; what information they require; what information products they create; what they need the LC4ISR SoS to provide and what parts of the system they interact with.

1.4. Field Support Representative - FSRs are the Contractor's representatives that are embedded into the Canadian Army Divisions (geographically located). Their role is to understand the LC4ISR system under development or next to be fielded and assist in its deployment to the Canadian Army (CA). This is through assistance to Army delivered training, or acting as a subject matter expert on the configuration and operation of the system that CA users can call upon for assistance.

1.5. Field Trial Support Services - This service comprises of dedicated test resources that are capable of conducting or participating in field trials. These resources need to be able to travel to any Canadian Forces Base or training area in Canada and potentially abroad. This team can be a mix of testers, developers, engineers and operational specialists depending on the assigned tasks.

1.6. Personas - They are archetypical descriptions that outline the main characteristic of the user population and sub-populations. Describes in more detail the specifics related to a role and Actor in the system. Provides a level of understanding of who is the end user in a meaningful fashion that focuses on that group's archetype, tasks, goals, frustrations and pain points. Allowing the engineering community to better understand the end design over and above the term 'User' and the generic 'Actor' of the system. An Actor can have and should typically have multiple Personas describing that Actor.

1.7. Product – An element that is part of a Sub-System or System. Each product will not function independently and does not provide a capability until integrated into the System or Sub-System. Examples would be the communication selector box, a component of ethernet local area network (ELAN); the E-mail server component of the overall e-mail service or the antenna array of a radar system.

1.8. Sub-System - The combination of elements (hardware, software and integrated logistics support processes) that is a part of the system. Each sub-system can function independently, but cannot provide a holistic capability until integrated into the System. Examples in the mobile domain include, the ELAN; in the headquarters domain, the E-mail system and in ISTAR, a radar system.

1.9. System - The combination of elements (hardware, software and integrated logistics support processes) that function together to produce a capability that meets the stakeholders needs. A system may be considered as a product or as the services it provides. Examples of a system in the Land C4ISR context are the headquarters and mobile domain networks as well as any and all stand-alone systems

1.10. System of Systems - SoS is a set of systems or system elements that interact to provide a unique capability that the sub-systems or system elements cannot accomplish individually. The loss of any part of the system will degrade the performance or capabilities of the whole. In the Land C4ISR context, this is the interconnection of all systems that comprise the Land C4ISR Capability.

1.11. Validation - Validation relates back to the concept of operations document. Validation testing is conducted under realistic conditions (or simulated conditions) on the Land C4ISR Capability to determine the effectiveness and suitability of the product for use in mission operations by typical users and to evaluate the results of such tests. Validation activities are only conducted in the Land C4ISR SoS Engineering and Integration functional grouping.

1.12. Verification - Verification testing relates back to the approved requirement set and can be performed at different stages in the product life cycle. Verification testing includes: (1) any testing used to assist in the development and maturation of Products, Systems, or manufacturing or support processes and/or (2) any engineering-type test used to verify the status of technical progress, substantiate achievement of contract technical performance and certify readiness for initial validation testing. Verification tests use instrumentation and measurements and are generally accomplished by engineers and technicians in a controlled environment.

1.13. CSESC – Land C4ISR Cyber Security Engineering Support Contract

1.14. LEISC – Land C4ISR Engineering and Integration Support Contract

1.15. LTSSC – Land C4ISR Transition Software Support Contract

## 2. PROPOSED LAND C4ISR SUSTAINMENT APPROACH

2.1. Respondents are advised that background information on the current requirements of the Land Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (Land C4ISR), as well as the current four major sustainment contracts (LEISC, LTSSC, CSESC and ISTAR) can be found in the LOI W8486-200731/A issued in August 2020 (<https://buyandsell.gc.ca/procurement-data/tender-notice/PW-QD-036-27853>).

2.2. There are currently four major sustainment contracts that support, in part, the Land C4ISR Capability that are being considered for replacement as part of this RFI. The intent of this RFI process is to replace the above listed four existing major sustainment contracts. Canada is proposing to replace these four contracts with four new functional groupings, which will eventually become four new contracts. Additionally, a graphical depiction of how the high-level requirements will be redistributed in these new four functional groupings can be found below in Figure 1.

2.3. Figure 1 outlines the distribution of the requirements (grey boxes) under the current four major support contracts (blue boxes) and how the services will be distributed under the proposed four new functional groupings (green boxes).

2.4. Respondents should use this figure to provide Canada with feedback regarding their ability to support these four new functional groupings and respond to Canada's questions located in Annex B of this RFI.

2.5. It is to be noted that this process excludes the replacement of the Weapon System Management (WSM) Contract as well as the DLCSPM Software Engineering Facility requirement.

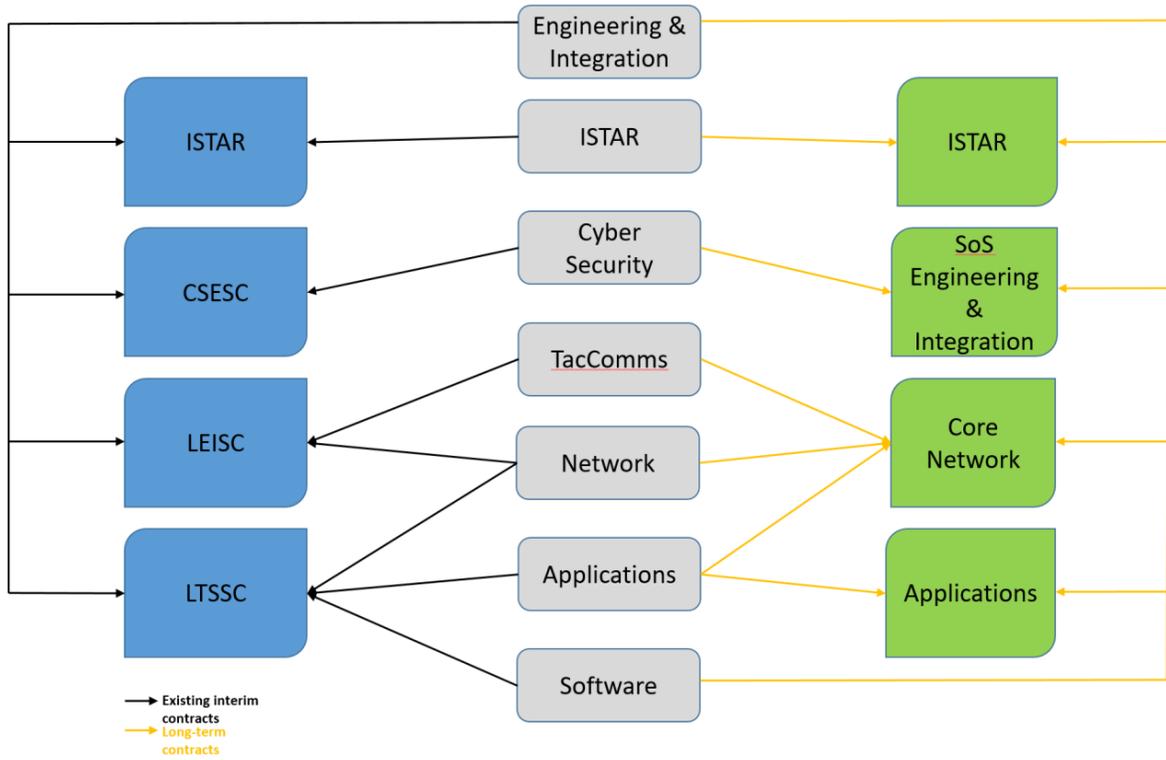


Figure 1 – Current vs. Proposed Sustainment Approach

### 3. HIGH-LEVEL REQUIREMENTS OF THE NEW FUNCTIONAL GROUPINGS

3.1. The following four services groupings are currently being considered as a part of this RFI. These functional groupings include:

3.2. **Land C4ISR SoS Engineering and Integration** – This functional grouping will consist of Engineering and Integration in support of the SoS, including cyber security services. These services include but are not limited to the following:

- a. System Architecture:
  - i. Development of functional architectures;
  - ii. Assist in development of operational requirements;
  - iii. Research and develop standardized connection patterns;
  - iv. Research and develop performance envelope based on user needs and expectations; and
  - v. Develop standard documentation set for baseline release (fielding) including items such as build books, manuals, training aides, etc.
- b. System Engineering:
  - i. System engineering;
  - ii. Joint and combined interoperability engineering; and
  - iii. Technical investigations.
- c. System Engineering Management:
  - i. Engineering Management including:
    1. Configuration management;
    2. System engineering management;
    3. Interface management;
    4. Engineering document management;
    5. Change management;
    6. Problem management;
    7. Information management; and
    8. Baseline management.
  - ii. Development and maintenance of operational use cases derived from the operational requirements and user needs and stories;
  - iii. Research, develop and/or recommend system communication standards; and
  - iv. Research, develop and/or recommend detailed interface standards for System and Sub-System integration.
- d. System Integration:
  - i. Development, maintenance and provision of Land C4ISR test environment for SoS, System and Sub-System test labs;
  - ii. System and SoS integration testing at the operational, joint and combined, and technical level;
  - iii. Test environment simulation services, which include system, traffic and operational (i.e. vehicle movement, radio frequency (RF) fading, etc.);
  - iv. Baseline validation;
  - v. Joint and combined interoperability testing;
  - vi. Test automation services; and
  - vii. System and SoS level troubleshooting and root cause analysis.

- e. System Management;
  - i. Information Technology Service Management (ITSM) support to episodic mission networks; and
  - ii. System management tools and processes.
- f. Development Security Operations:
  - i. Development and maintenance of a continuous integration and continuous delivery pipeline;
  - ii. Automated test suite or application programming interface services; and
  - iii. System packaging team.
- g. User Experience (UX) and Human Factors Engineering (HFE):
  - i. Development and maintenance of user needs and user stories;
  - ii. Development and maintenance of Land C4ISR Personas and Actors;
  - iii. Development and maintenance of Land C4ISR style guides; and
  - iv. Provide user perspective throughout engineering process.
- h. Tactical Systems Integration Laboratory (TSIL) facility, a Crown controlled facility to be supplied by the Contractor:
  - i. Facility maintenance;
  - ii. Logistics facility;
  - iii. Workshop facility;
  - iv. COMSEC facility management;
  - v. Laboratory facility; and
  - vi. Network facility.
- i. Integrated Logistics Support:
  - i. Technical writing services;
  - ii. Training material development;
  - iii. User facing document management and publishing; and
  - iv. Supply and maintenance recommendations at the System level.
- j. Field Support:
  - i. Operational support;
  - ii. Field Trial Support; and
  - iii. Field Support Representative (FSR).
- k. Cyber Security Services and Operations:
  - i. Cyber security engineering and integration;
  - ii. Technical investigations and monitoring;
  - iii. Baseline patch management;
  - iv. Security vulnerability assessment and authorization;
  - v. Cyber Security Operation Center; and
  - vi. Engineering network security.
- l. Limited Production:
  - i. Operational and production grade military specification hardware for laboratory and field test environments.

3.3. **Land C4ISR Core Network** – consists of engineering, integration and development services that support all common services and capabilities that comprise Land C4ISR Core Network. It encompasses both hardware and software and spans the current mobile and headquarters domains. Services may include but are not limited to:

- a. Sub-System Engineering Management:
  - i. Detailed Sub-System design services based on established connection patterns and standards;
  - ii. The conduct of technical investigations and engineering studies;
  - iii. Detailed Sub-System documents;
  - iv. Software, hardware and firmware design services;
  - v. Routing and quality of service expertise;
  - vi. Database and information architecture services; and
  - vii. NATO digital messaging expertise.
  - viii. Examples of Sub-Systems that this functional grouping encompass for design and integration purposes includes:
    - 1. Tactical vehicle networks such as ELAN and IRIS;
    - 2. Vehicle communications suite & static kits;
    - 3. Mobile domain messaging service including friendly force positional awareness systems;
    - 4. Headquarters domain network infrastructure;
    - 5. Voice, email and directory services;
    - 6. Network time and domain name services;
    - 7. Internetwork gateways;
    - 8. Server and client infrastructure (hardware and software);
    - 9. Routing and technical databases; and
    - 10. Enterprise geospatial services and meteorological services.
- b. Sub-System Integration testing and Product testing:
  - i. Product functional and technical testing and Verification;
  - ii. Sub-System functional and technical testing and Verification;
  - iii. Technical investigations as well as Product and Sub-System root cause analysis;
  - iv. Observation and System Problem Report (SPR) generation; and
  - v. Develop and implement resolutions to Product, Sub-System, System and SoS bugs and SPRs.
- c. Product Development:
  - i. Software, hardware and firmware development services to include but not limited to the following expertise:
    - 1. Software development;
    - 2. Cable design and prototyping;
    - 3. Circuit card and field programmable gate array design and programming;
    - 4. Computer Aided Design (CAD) model services;
    - 5. Development of manufacturing packages for hardware products; and
    - 6. Database and information architecture development.
  - ii. Examples of products that this functional grouping could encompass for development purposes includes:
    - 1. Communication selector boxes, vehicle interface panels, local area network (LAN) ethernet switches;
    - 2. Vehicle device adapters;

3. Vehicle installation hardware;
  4. Vehicle network and RF cables;
  5. Radios and RF bearers;
  6. Routing infrastructure and quality of service tables;
  7. System management applications;
  8. Network monitoring applications;
  9. Disaster recovery services;
  10. Boundary protection devices; and
  11. Technical databases.
- d. Integrated Logistics Support:
- i. Technical writing services;
  - ii. Product and Sub-System training material development;
  - iii. Technical publications;
  - iv. Supply and maintenance recommendations at the Sub-System and Product level; and
  - v. Support services to Director Land Command Systems Program Management (DLCSPM) life cycle material managers (LCMM).
- e. Electromagnetic Environmental Effect (E3) Analysis;
- f. Platform Communication Suite Design, Verification and Qualification services;
- g. Platform Cyber Security Design and testing;
- h. Field Support:
- i. Field Trial Support Services
- i. Limited Production:
- i. Operational and production grade military specification hardware for laboratory and field test environments.
- 3.4. **Land C4ISR Applications** - consists of engineering, integration and development that support user facing services and capabilities which leverage the Land C4ISR Core Network. Services may include but are not limited to:
- a. Sub-System Engineering Management:
- i. Detailed Sub-System design services based on established connection patterns and standards;
  - ii. The conduct of technical investigations and engineering studies;
  - iii. Detailed Sub-System documents; and
  - iv. Software design services.
  - v. Examples of Sub-Systems that this functional grouping encompass for design and integration purposes includes:
    1. Battle management systems;
    2. Incident management systems; and
    3. Information management systems.
- b. Sub-System Integration testing and Product testing:
- i. Product functional and technical testing and Verification;
  - ii. Sub-System functional and technical testing and Verification;

- iii. Technical investigations as well as Product and Sub-System root cause analysis;
  - iv. Observation and SPR generation; and
  - v. Develop and implement resolutions to Product, Sub-System, System and SoS bugs and SPRs.
- c. Product Development:
- i. Software, hardware and firmware development services to include but not limited to the following expertise:
    - 1. Software development; and
    - 2. Application Database and information architecture development.
  - ii. Examples of products that this functional grouping could encompass for development purposes includes:
    - 1. Chat applications;
    - 2. Web applications;
    - 3. Headquarters and mobile battle management applications;
    - 4. Information databases;
    - 5. Information translation and conversion services; and
    - 6. Software only gateways.
- d. Integrated Logistics Support:
- i. Technical writing services;
  - ii. Product and Sub-System training material development;
  - iii. Technical publications;
  - iv. Supply and maintenance recommendations at the Sub-System and Product level; and
  - v. Support services to DLCSPM LCMM.
- e. Field Support:
- i. Field Trial Support Services
- f. Limited Production:
- i. Operational and production grade military specification hardware for laboratory and field test environments.
- 3.5. **Land C4ISR ISTAR** - consists of engineering, integration and development that supports services and capabilities for military specialists that connect to the Land C4ISR Core Network. Services may include but are not limited to:
- a. Sub-System Engineering Management:
- i. Detailed Sub-System design services based on established connection patterns and standards;
  - ii. The conduct of technical investigations and engineering studies;
  - iii. Contribution with Intelligence, Surveillance and Reconnaissance (ISR) perspective to SoS architecture initiatives;
  - iv. Detailed Sub-System documents;
  - v. Software, hardware and firmware design services;
  - vi. Sensor investigations to support variety of specialized CA groups; and
  - vii. NATO Interoperable ISR Architecture (NIIA) communication standards.
- b. Sub-System Integration testing and Product testing:

- i. Product functional and technical testing and Verification;
  - ii. Sub-System functional and technical testing and Verification;
  - iii. Technical investigations as well as Product and Sub-System root cause analysis;
  - iv. Develop and implement resolutions to Product, Sub-System, System and SoS bugs and SPRs.
- c. Product Development:
- i. Software, hardware and firmware development services to include but not limited to the following expertise:
    - 1. Software development;
    - 2. Hardware development; and
    - 3. Specialists' database and information architecture development.
- d. Integrated Logistics Support:
- i. Technical writing services;
  - ii. Product and Sub-System training material development;
  - iii. Technical publications;
  - iv. Supply and maintenance recommendations at the Sub-System and Product level; and
  - v. Support services to DLCSPM LCMM.
- e. Field Support:
- i. Field Support Services for trials, exercises, and operations
- f. All the above services for section 3.5 will be required in support of capabilities that include but are not limited to:
- i. ISR Platform and Sensor Systems;
    - 1. Radar and acoustic, unmanned aircraft systems, electronic warfare, chemical, biological, radiological and nuclear (CBRN), geospatial intelligence, cameras, patrol collection kits, unmanned and unattended systems.
  - ii. ISR Command and Control
    - 1. Intelligence Requirement Management and Collection Management (IRM&CM);
    - 2. All source intelligence cell (ASIC), link analysis and collation systems;
    - 3. Sensor tasking systems;
    - 4. Joint targeting applications;
    - 5. Sensor integration applications; and
    - 6. Intelligence and specialized databases.
  - iii. ISR specialists data link and signal processing equipment
    - 1. NATO data links, such as Link 11 and Link 16;
    - 2. ISR Downlink such as Tactical Network Rover (TNR)
    - 3. Fielded tactical mobile ad hoc network (MANET) in ISR context;
    - 4. Video Encoders;
    - 5. Sensor Integration modules; and
    - 6. Fire support, such as digitally aided close air support.



## 1. CAPABILITY DELIVERY

- 1.1 Can Industry sustain and support the delivery of the following proposed functional groupings to be awarded as separate contracts:
- a. Land C4ISR System of Systems (SoS) Engineering and Integration;
  - b. Land C4ISR Core Network;
  - c. Land C4ISR Applications; and
  - d. Land C4ISR Intelligence Surveillance Target Acquisition and Reconnaissance (ISTAR).

Please justify all answers.

- 1.2 How does industry suggest and propose to transition from the current interim sustainment contracts to the proposed functional groupings (new contract(s))? How long would be the associated transition period? Please justify your answer.
- 1.3 Does your company intend to partner with one or more other firms in order to perform the services listed under the new functional groupings? If so, what type of partnership, agreements or arrangements is your company considering?

## 2. CONTRACT DELIVERY

- 2.1 Based on the proposed functional groupings listed in Question 1.1 above, what does Industry foresee as the minimum contract duration to ensure a return on investment to the successful bidder(s) for each the four functional groupings? Please justify your answer.
- 2.2 Subject to contractual options to extend the term of the contract for the four proposed functional groupings, what does Industry foresee as?
- The optimal total number of optional years be included in a contract. Please justify your answer;
  - The duration of each optional period. Please justify your answer; and
  - The type of mechanism to be used to evaluate and award optional years. Please justify your answer.
- 2.3 Canada is committed to ensure openness and inclusiveness. A Gender Based Analysis + is conducted for each major procurement. How would recommend we measure GBA+ considerations as part of the evaluation?

Gender Based Analysis +: <https://www.canada.ca/en/treasury-board-secretariat/services/treasury-board-submissions/gender-based-analysis-plus.html>

- 2.4 Contracts using an agile services delivery model are a challenge to evaluate for performance. DND is working to develop Key Performance Indicators (KPIs) that will be used to evaluate the awarded contracts. How would you recommend that KPIs be developed and evaluated as part of an upcoming Request for Proposal(s), and then applied and measured in support of each of the four functional groupings?

### 3. APPLICATION OF THE INDUSTRIAL AND TECHNOLOGICAL BENEFITS (ITB) POLICY

The Industrial and Technological Benefits (ITB) Policy, including Value Proposition (VP) may be applied on the Land Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (LC4ISR) long-term sustainment.

Innovation, Science and Economic Development (ISED) Canada continues to seek feedback from industry to further develop and refine the ITB Value Proposition approach to the LC4ISR Sustainment and resulting contracts. To this end, the following questions are proposed to industry to guide the development of the Value Propositions under this project.

For more information about the ITB Policy, please visit [www.canada.ca/itb](http://www.canada.ca/itb).

- 3.1 Within the evaluation of Value Proposition criteria for a given procurement, there is flexibility to utilize a variety of different scoring approaches. Pro-rated scoring systems and marginal scoring systems have been used in past evaluations for other procurements. ISED is seeking feedback on the potential scoring methodology for the Value Propositions which are to be developed for the proposed functional groupings:
- a. Which scoring methodology (pro-rated or marginal scoring, examples of which can be found below) would your company recommend for this project? Please include in your answer an explanation as to why this approach is recommended.

The following examples are for demonstration purposes only:

#### ***j) Pro-Rated Scoring Explanation and Example***

In a pro-rated scoring scenario, bids are scored in relation to other bids received. The bidder that offers the highest total commitment achieves the maximum available points for the VP criteria, and all other bids are scored against the highest bid commitment.

**Scenario:** R&D VP criteria is given a weighting of 30 points. Three bidders make percentage of bid price commitments to R&D work in Canada, resulting in the points scenario in Table A below.

*Table A: Pro-Rated Bid Scoring Scenario Example*

| <b><i>VP criteria:<br/>Research &amp;<br/>Development (R&amp;D)</i></b> | <b>Bidder 1</b>                         | <b>Bidder 2</b>                         | <b>Bidder 3</b>                           |
|---|---|---|---|
| <b>Bidder's R&amp;D Commitment as Percentage of Contract Value</b>      | 5%                                      | 20%                                     | 15%                                       |
| <b>Pro-rated VP score for R&amp;D received in bid evaluation</b>        | $5/20 \times 30 =$<br><b>7.5 Points</b> | $20/20 \times 30 =$<br><b>30 Points</b> | $15/20 \times 30 =$<br><b>22.5 Points</b> |

#### ***ii) Marginal Scoring Explanation and Example***

In a marginal scoring scenario, bids are scored in relation to a developed scoring table, which is created through engagement with industry and market analysis. Bidders receive points in the bid evaluation for their commitments based on a scale, such as in Table B below.

**Scenario:** R&D VP criteria is given a weighting of 30 points. Three bidders make percentage of bid price commitments to R&D work in Canada, resulting in the points scenario in Table C below.

*Table B: Marginal Scoring Table Example*

| Percentage Range                                   | Points Awarded   |
|--|--|
| 0-15%<br>Max points in this range: 15 points       | 1 point per each 1% committed up to a maximum of 15 percent                      |
| > 15% - 45%<br>Max points in this range: 15 points | 0.5 points per each 1% committed above 15 percent up to a maximum of 45 percent. |
| > 45%  | No additional points awarded for any commitments beyond 45 percent.              |

*Table C: Marginal Scoring Bid Scenario Example*

| VP criteria:<br>Research &<br>Development<br>(R&D)      | Bidder 1                          | Bidder 2   | Bidder 3                             |
|---|-----------------------------------|--|--------------------------------------|
| Bidder's R&D Commitment as Percentage of Contract Value | 5%                                | 20%  | 15%                                  |
| Marginal VP score for R&D received in bid evaluation    | $5 \times 1 =$<br><b>5 Points</b> | $(15 \times 1) + (5 \times 0.5) =$<br><b>17.5 Points</b> | $15 \times 15 =$<br><b>15 Points</b> |

- 3.2 Based on the high-level technical and security requirements of this project, a majority of the work will occur in Canada, resulting inherently in a high-level of direct work capability by the Contractor. Early industry engagement suggests that a mandatory minimum requirement of direct work between 70-80% would be reasonable for this project:
- a. Is this proposed minimum requirement for direct work reasonable for the four proposed contract groupings (LC4ISR System of Systems (SoS) Engineering and Integration, LC4ISR Core Network, LC4ISR Applications, and LC4ISR ISTAR)? Please indicate any deviation in the recommended minimum level of direct work for any of the four potential contracts your company may be interested in pursuing.
- 3.3 Initial analysis and industry engagement suggested this procurement encompasses the KICs of Defence System Integration, Cyber Resilience and Artificial Intelligence (full definitions of which can be found at [https://www.ic.gc.ca/eic/site/086.nsf/eng/h\\_00175.html](https://www.ic.gc.ca/eic/site/086.nsf/eng/h_00175.html)).
- a. Do these KICs continue to be relevant to each of the four proposed contract groupings? Are there additional KICs which could be leveraged in the Value Proposition for these proposed contracts? Please explain.
  - b. What types of investment could be leveraged within the relevant KICs, and how might Canada best motivate this investment through the ITB Value Proposition?
- 3.4 Comparatively to price and technical merit, the Value Proposition will be at least 10% of the overall bid evaluation, and can be increased based on a project's alignment with KICs and related

market capacity in Canada. What is your view on the weighting of the Value Proposition for any of the four proposed contract groupings your company may be interested in?

- a. In your response, please include feedback on proposed weightings for each Value Proposition pillar (i.e. Defence Sector, Supplier Development, Skills Development and Training, Research and Development, and Exports).