



# Defence Research and Development Canada (DRDC) Innovation Call For Proposals (CFP)





SCIENCE, TECHNOLOGY AND KNOWLEDGE

FOR CANADA'S DEFENCE AND SECURITY

SCIENCE, TECHNOLOGIE ET SAVOIR
POUR LA DÉFENSE ET LA SÉCURITÉ DU CANADA

# **TABLE OF CONTENTS**

PART 1	- GENERAL INFORMATION	1
1.1	SUMMARY	1
1.2	CALL FOR PROPOSALS PROCUREMENT APPROACH	1
1.3	Trade Agreements	2
1.4	SECURITY REQUIREMENTS	2
1.5	CANADIAN CONTENT	2
1.6	CONTROLLED GOODS PROGRAM	2
1.7	EMPLOYMENT EQUITY	2
1.8	CONFLICT OF INTEREST	2
1.9	COMPREHENSIVE LAND CLAIM AGREEMENTS (CLCA)	2
PART 2	– BIDDERS' INSTRUCTIONS	4
2.1	STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS	4
2.2	ENQUIRIES - PROPOSAL SOLICITATION	5
2.3	CONTRACTING AUTHORITY	5
2.4	Applicable Laws	5
2.5	COMMUNICATIONS NOTIFICATION	5
2.6	MAXIMUM FUNDING	5
PART 3	- PROPOSAL PREPARATION INSTRUCTIONS	6
3.1	WHO MAY APPLY	6
3.2	ELECTRONIC PROPOSAL SUBMISSION FORM	7
3.3	CLASSIFIED PROPOSALS	7
3.4	TECHNICAL PROPOSAL	8
3.5	FINANCIAL PROPOSAL	8
3.6	CERTIFICATIONS	9
PART 4	- EVALUATION PROCEDURES AND BASIS OF SELECTION	10
4.1	EVALUATION PROCEDURES	10
4.2	EVALUATION CRITERIA	10
4.3	Pool of Pre-Qualified Proposals	11
4.4	Proposal Selection	
4.5	Debriefing	11
4.6	CONTRACTING PROCESS	12
4.7	INTELLECTUAL PROPERTY	
4.8	HUMAN AND ANIMAL ETHICS	13
PART 5	- CERTIFICATIONS AND ADDITIONAL INFORMATION	14
5.1	CERTIFICATIONS REQUIRED WITH THE PROPOSAL	
5.2	CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION	15
PART 6	- SECURITY, FINANCIAL AND OTHER REQUIREMENTS	20
6.1	SECURITY CONSIDERATIONS	
6.2	FINANCIAL CAPABILITY	20
6.3	CONTROLLED GOODS PROGRAM - BID	20
PART 7	- RESULTING CONTRACT CLAUSES	21

ANNEX A - PROJECT TYPES	29
ANNEX B - CHALLENGES	33
ANNEX C - EVALUATION CRITERIA	39
ANNEX D - WORK PLAN	49
ANNEX E – DETAILED BUDGET TABLE	50
ANNEX F - PROJECT MANAGER EXPERIENCE	53
ANNEX G- KEY PROJECT TEAM MEMBERS EXPERIENCE	54
ANNEX H – PARTNERSHIP SIGNATURE FORM	55
ANNEX I – TECHNOLOGY READINESS LEVELS (TRLS)	56
ANNEX J – CO-INVESTMENT INFORMATION	57

#### **PART 1 - GENERAL INFORMATION**

## 1.1 Summary

Public Works and Government Services Canada (PWGSC) is issuing a Call for Proposals (CFP) on behalf of Defence Research and Development Canada (DRDC) - an agency of Canada's Department of National Defence (DND) that provides DND, the Canadian Armed Forces, and other government departments as well as the public safety and security communities, the knowledge and technological advantage needed to defend and protect Canada's interests at home and abroad.

The CFP is an invitation to bidders to submit innovative science and technology (S&T) proposals in support of Canada's defence, security and public safety.

More specifically, this CFP identifies S&T Challenges (see Annex B) that relate to the following DRDC programs and for which innovative solutions are sought:

- All-Domain Situational Awareness (ADSA) Program a five-year initiative to conduct research
  and analysis to support the development of options for enhanced domain awareness of air,
  surface and sub-surface approaches to Canada, and in particular those in the Arctic. The ADSA
  Program focuses on the following areas:
  - Strategic surveillance of airborne traffic and aerospace warning;
  - Awareness of maritime traffic in Canadian approaches and Arctic littoral regions;
  - o Awareness of sub-surface activity approaching or in Canada's North; and
  - Analysis of sensor mixes and information integration and sharing for all domain awareness to enable detection of modern threats beyond the threshold of the current systems.
- Canadian Safety and Security Program (CSSP) a whole-of-government initiative that enhances
  Canada's security and public safety through S&T investments. The CSSP strengthens Canada's
  ability to anticipate, prevent, mitigate, prepare for, respond to and recover from natural
  disasters, serious accidents, crime and terrorism through the convergence of S&T with policy,
  operations and intelligence.

## 1.2 Call for Proposals Procurement Approach

This Call for Proposals (CFP) process involves a two-stage procurement process:

Stage 1: Proposal Submission and Evaluation

Stage 2: Contracting

The information provided in Stage 1 will be used to establish a pool of pre-qualified proposals. Pre-qualified proposals selected for funding will be subject to the contracting stage that is led by the Contracting Authority.

The establishment of the Pre-Qualified Pool and the selection of proposals for funding does not constitute a guarantee on the part of Canada that a contract will be awarded.

## 1.3 Trade Agreements

The Agreement on Internal Trade (AIT) applies to this procurement. The CFP process is organized in a manner consistent with the principles of the AIT in terms of equal access, fairness, and transparency and is open to - public and private sector entities.

The requirement is excluded from the North American Free Trade Agreement (NAFTA) as per Annex 1001.1b-2 Research and Development, all classes, and excluded from the application of the World Trade Organization – Agreement on Government Procurement (WTO-AGP) under Appendix 1, Annex 4.

#### **1.4 Security Requirements**

There may be security requirements associated with the resulting contracts. For more information on personnel and organization security screening or security clauses, Bidders should refer to the Industrial Security Program (ISP) of Public Works and Government Services Canada at http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.

## 1.5 Canadian Content

This procurement is conditionally limited to Canadian goods and Canadian services.

# 1.6 Controlled Goods Program

Any resulting contract may be subject to the Controlled Goods Program. The <u>Defence Production Act</u> defines Canadian Controlled Goods as certain goods listed in Canada's Export Control List, a regulation made pursuant to the Export and Import Permits Act (EIPA).

#### 1.7 Employment Equity

The Federal Contractors Program (FCP) for employment equity may apply to this procurement (consult Part 5 – Certifications and Additional Information).

#### 1.8 Conflict of Interest

The Contractor, its subcontractor(s) or any of their agent(s) directly or indirectly involved in the performance of the Work and/or in the production of the deliverables under any resulting Contract will not be precluded from bidding on any potential future proposal solicitation related to the production or exploitation of any concept or prototype developed or delivered.

# 1.9 Comprehensive Land Claim Agreements (CLCA)

Depending on the proposals received, the region of delivery for the goods and/or services may be in an area subject to Comprehensive Land Claims Agreements (CLCAs). If this occurs, that procurement will be subject to the applicable Comprehensive Land Claims Agreement(s).

# 2.0 Terminology

In this document, terms identified below and their meaning referenced in the 2003 (2016-04-04) Standard Instructions are identified below

Term (CFP)	Term ( Standard Instructions 2003)			
Call for Proposals (CFP)	solicitation			
Proposal	bid			

#### **PART 2 – BIDDERS' INSTRUCTIONS**

## 2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

Bidders who submit a proposal agree to be bound by the instructions, clauses and conditions of the proposal solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the proposal solicitation.

Section 4, Definition of a Bidder, of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

**Delete:** It does not include the parent, subsidiaries or other affiliates of the Bidder, or its subcontractors.

Subsection 5.2 d of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

**Delete:** The facsimile number and related instructions for proposals transmitted by facsimile are provided in section 08;

**Delete** the following sections in their entirety:

- Section 08 Transmission by Facsimile
- Section 09 Customs Clearance

Section 5, Submission of Proposals, subsection 4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

**Delete:** Proposals will remain open for acceptance for a period of not less than 60 days from the closing date of the proposal solicitation, unless specified otherwise in the bid solicitation.

**Insert**: Proposals will remain open for acceptance from date of proposal submission for 12 months. The Contracting Authority may reduce this period by sending written notice to the Bidder following Canada's completion (partial or entire) of Stage 2.

At Section 14, Price Justification of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

**Delete:** In the event that the Bidder's proposal is the sole responsive proposal received, the Bidders must provide, on Canada's request, one or more of the following price justification:

**Insert:** For all pre-qualified proposals eligible for Contract award, the Bidders must provide, on Canada's request, one or more of the following price justification:

# 2.2 Enquiries - Proposal Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 10 (ten) calendar days before the bid solicitation's closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders 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 Bidders do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

## 2.3 Contracting Authority

The Contracting Authority for this bid solicitation is: Heather Palmer Public Works and Government Services Canada Acquisitions Branch Defence Sciences Division Telephone: 873-469-4812

E-mail address: heather.palmer@tpsgc-pwgsc.gc.ca

# 2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their proposal, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

#### 2.5 Communications Notification

As a courtesy and in order to coordinate any public announcements pertaining to any resulting contract, the Government of Canada requests that successful Bidders notify the Contracting Authority 5 business days in advance of their intention to make public an announcement related to the recommendation of a contract award, or any information related to the contract. The Government of Canada retains the right to make primary contract announcements.

## 2.6 Maximum Funding

For this CFP, approximately \$97 million has been allocated; \$82 million for Air, Surface, and Subsurface Stream A S&T Challenges and \$15 million for Public Safety and Security Stream B. All proposals must be costed in Canadian dollars.

#### **PART 3 - Proposal PREPARATION INSTRUCTIONS**

#### 3. 1 Who May Apply

This CFP is open to all public and private sector entities. The Bidder will assume the responsibility of submitting the proposal and serving as the point of contact for the duration of the CFP process.

- 3.1.1 Defence Research and Development Canada (DRDC) can be listed as a partner but can neither be the bidder nor the Lead Government Department in any proposal for this CFP.
- 3.1.2 Applicable to S&T Challenges of Stream B only (refer to Annex B for Stream B):
- 3.1.2a. Proposals must have a minimum of two partner organizations and must satisfy the following:
  - 1) Identification of a partnership that includes:
    - a) a Lead Canadian Government Department prepared to be the project champion\*; and
    - b) a different Government Department from 3.1.2a.1.a, or any other partner.
  - 2) Submission of a completed Partner Signature Form as set out in Annex H. Signatures must, at a minimum, be at:
    - a) Director General level for the federal government; and
    - b) A level acceptable for a provincial/territorial/municipal level of government to authorize the financial and operational commitment of its organization for the proposal.
- \* To qualify as a Canadian Government Department (federal, provincial, territorial, or municipal), a partner must fit into one of the following three categories:
  - 1) Be listed under Schedules I through V of the Financial Administration Act; or
  - 2) Be a government corporation or any other public authority designated by regulation of a Lieutenant Governor in Council; or
  - 3) Satisfy each of the following criteria:
    - a) the entity was created by legislation;
    - b) the government determines the general policy or program of the entity;
    - c) the government appoints members to the board of directors of the entity;
    - d) direct control of the entity is held by possessing 100 percent of the voting equity;
    - e) the entity's assets revert back to a government in the event of liquidation or dissolution;
    - f) the entity's budget is approved by the government;
    - g) the entity submits an annual, audited report to a government; and
    - h) the entity's financial accounts are subject to examination by an Auditor General.
- 3.1.2.b. Additional Canadian or international partners in the public or private sector are permitted as long as the above two requirements are satisfied.

# 3.2 Electronic Proposal Submission Form

- 3.2.1 Bidders are requested to submit their proposal using the electronic Proposal Submission Form at the website specified <a href="https://drdc-rddc-cfp-adp-2016.fluidreview.com/">https://drdc-rddc-cfp-adp-2016.fluidreview.com/</a>. In order to complete and submit a proposal, Bidders must first register and obtain a username and password.
- 3.2.2 When a proposal is successfully submitted, an automated email is sent to the Bidder. This email serves as confirmation of receipt.

All proposals must be received by the closing date and time specified on the Buy and Sell website. Proposals received after the specified period will not be evaluated.

- 3.2.3 If a large number of Bidders access the web-based system at the same time, electronic submission of proposals may be delayed. Bidders are solely responsible for ensuring their proposal is submitted properly in its entirety and on time.
- 3.2.4 Should there be technical difficulties accessing or using the web-based system, Bidders must use the contact information located on the website. Technical Assistance is restricted to issues associated with mechanics of the online system. Technical Assistance personnel are not associated with the bid solicitation and are not in a position to comment on or provide interpretation on the bid solicitation. All non-technical assistance for proposal submission is to be directed to the Contracting Authority.

## 3.3 Classified Proposals

3.3.1 Bidders submitting a classified proposal must contact the Contracting Authority to arrange delivery of the proposal using procedures designed to protect the sensitivity of the content.

Bidders submitting a classified proposal must use and fully populate the Classified Submission Form and must adhere to the word limits imposed by section (as applicable). Bidders submitting a classified proposal must contact the Contracting Authority to obtain the Classified Submission Form and to arrange delivery of the proposal using procedures designed to protect the sensitivity of the content.

All classified proposals must be received by the specified closing date and time indicated on the Buy and Sell website. Proposals received after the specified closing date and time will not be evaluated.

Due to the nature of the proposal solicitation, proposals transmitted by facsimile to PWGSC will not be accepted.

Canada requests that Bidders provide their proposal in separately bound sections as follows:

Section I: Technical Proposal (4 hard copies)

Section II: Financial Proposal (4 hard copies)

Section III: Certifications (1 hard copy)

Section IV: Additional Information (4 hard copies)

## 3.4 Technical Proposal

- 3.4.1 The Bidder's responses to the criteria presented in the electronic Proposal Submission Form will form the Bidder's Technical Proposal. Bidders must respond to each criterion in a thorough, concise and clear manner within the allotted character count for each criterion. The Bidders must provide Technical Proposal content that clearly addresses in sufficient depth the points that are subject to the evaluation criteria against which the proposal will be evaluated.
- 3.4.2 To maintain the integrity of the evaluation, Evaluators will consider only information presented in the proposal. No information will be inferred and personal knowledge or beliefs will not be utilized in the assessment. Bidders should explicitly demonstrate, in sufficient detail, how all criteria are met.

# 3.5 Financial Proposal

- 3.5.1 Bidders must complete the Financial Proposal Cost Breakdown set out in the electronic Proposal Submission Form. Responses provided in the electronic Proposal Submission Form will form the Bidder's financial proposal.
- 3.5.2 The Bidder's financial proposal should not exceed the amounts identified in Annex A. Any dollar value exceeding the maximum funding amounts may be the Bidder's commitment of co-investment funding to a resulting contract. All financial proposals must be in Canadian Dollars.
- 3.5.3 The financial proposal submitted will be negotiated in accordance with the statement of work (SOW) to be finalized during Stage 2, and must be in accordance with the PWGSC Contract Cost Principles 1031-2. More information can be found at: <a href="https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/1031-2/6">https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/1031-2/6</a>
- 3.5.4 Exchange Rate Fluctuation C3011T (2013-11-06) Exchange Rate Fluctuation

#### 3.5.5 Eligible Costs

DRDC funds can only be used for incremental resourcing costs associated with delivering a project - for example, material and supplies, equipment rentals, subcontractors, casual or permanent employees (not including indeterminate employees at the federal level of the government in Canada). Therefore, DRDC funds can only be used for expenditures that are not amortized.

3.5.6 Salary Wage Envelope Conversion for Federal Government Participants
As per Treasury Board of Canada Secretariat requirements, the Employee Benefit Plan (EBP) amount (20 percent of personnel costs) must be included in costing calculations. The EBP fee is applicable to incremental federal government salaries and does not apply to other orders of government or the private sector.

## 3.5.7 Ineligible Costs

DRDC funds cannot be used to pay for salaries of indeterminate employees at the federal level of government in Canada; however, indeterminate employee salaries (including the EBP amount) can be included in the proposal as an in-kind contribution.

Also, no payment will be made for costs incurred in the preparation, submission, and contract negotiation related to a proposal under this CFP. Costs associated with these activities, including the

development of any supporting documentation and any Bidder costs incurred associated with the evaluation of the proposal, are the sole responsibility of the Bidder.

# 3.6 Certifications

Required certifications and additional information are identified in Part 5.

#### PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

#### 4.1 Evaluation Procedures

- a) Proposals will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- b) An evaluation team composed of representatives of Canada will evaluate the proposals. If required, Canada may use external Subject Matter Experts (SMEs) to evaluate any proposal. External SMEs will be required to confirm they are not in a conflict of interest, and sign a non-disclosure agreement.
- c) For each S&T Challenge, the evaluation team will determine first if there are two or more bids with a valid Canadian Content certification. In that event, the evaluation process will be limited to the bids with the certification; otherwise, all bids will be evaluated. If some of the bids with a valid certification are declared non-responsive, or are withdrawn, and less than two responsive bids with a valid certification remain, the evaluation will continue among those bids with a valid certification. If all bids with a valid certification are subsequently declared non-responsive, or are withdrawn, then all the other bids received will be evaluated.

#### 4.2 Evaluation Criteria

#### 4.2.1 Mandatory Criteria

Proposals must meet all mandatory criteria identified in Annex C.1 to be in compliance with the CFP. Proposals that fail to meet all mandatory criteria will be declared non-responsive.

#### 4.2.2 Supporting Information

In the event that the Bidder fails to submit supporting information pursuant to the mandatory criterion 1, 2 and 4, or annexes D, E, and H, the Contracting Authority may, but is not required to, request it thereafter in writing, including after the closing date of the bid solicitation. It is mandatory that the Bidder provide the supporting information within one business day of the written request or within such period as specified or agreed to by the Contracting Authority in the written notice to the Bidder. Failure to provide the supporting information in the allotted time will render the proposal non-responsive.

#### 4.2.3 Point-Rated Evaluation Criteria

Each proposal that meets all of the mandatory criteria will be evaluated and scored in accordance with the point-rated evaluation criteria identified in Annex C.2. Proposals must obtain a minimum score of 63 for the scientific merit and technical merit, as well as a minimum overall pass mark of 126 points out of 180 points. Proposals not meeting both specified minimum pass marks will be deemed non-responsive.

## 4.2.4 Evaluation of Price

The price of the proposal will be evaluated in Canadian Dollars; including, Applicable Taxes, travel and living costs, shipping, Canadian customs duties and excise taxes.

For evaluation purposes only, the price of the proposal will be determined as detailed in Annex E.

# 4.3 Pool of Pre-Qualified Proposals

Proposals that satisfy all of the mandatory criteria, achieve the specified minimum pass marks, and meet all other requirements of the bid solicitation will be considered responsive and placed in the pool of pre-qualified proposals and submitted to the Proposal Selection Committee. This is not a guarantee that a responsive proposal will be selected for funding or that a contract will be awarded.

#### 4.4 Proposal Selection

The Air, Surface, and Subsurface Stream (Stream A) and the Public Safety and Security Stream (Stream B) will each go through their respective proposal selection process. Each process will follow the same order.

All responsive proposals will be considered for funding in accordance with the selection process summarized as follows:

**Proposal Selection Committee (PSC):** The PSC is chaired by a Director General of DRDC and is composed of representatives from DRDC, and as needed, other government department SMEs. The PWGSC Contracting Authority will also participate in the PSC in an observational capacity. The PSC considers the evaluation results of the proposals and examines the distribution of investment across multiple parameters, such as:

- program priorities;
- number of investments across priorities and S&T Challenges;
- previous years' investments;
- the strength of individual proposals;
- changes to Government of Canada priorities;
- similar S&T initiatives being funded by DRDC's partners;
- project types and technology readiness levels;
- level of co-investment, particularly cash co-investment, as an indicator of shared risk.

This results in the creation of a prioritized pool of pre-qualified proposals that are recommended to receive funding, and a list of proposals not recommended for funding. The results are then sent for endorsement by the Steering Committee.

**Steering Committee (SC)**: The SC is chaired by the Department of National Defence Assistant Deputy Minister (S&T) (DND ADM(S&T)) and is composed of representatives from DRDC and, as needed, other government department SMEs. The PWGSC Contracting Authority will also participate in the SC in an observational capacity. The SC will review and endorse the PSC's prioritized pool of pre-qualified proposals recommended and not recommended for funding. The SC will consider the same factors as the PSC. The result is a final pool of pre-qualified proposals for approval by DND, as appropriate.

#### 4.5 Debriefing

After communication of the finalized pool of pre-qualified proposals, Bidders may request a debriefing on the results of the CFP process (excluding Stage 2 which will be released after all contracts have been negotiated and awarded). Such a request is to be made to the Contracting Authority within 15 working

days of receipt of the results of the CFP process. The debriefing may be in writing, by telephone or in person.

## 4.6 Contracting Process

Recommendation for contract award will be determined based on the available budget and the success in completing the following steps.

# 4.6.1 Financial Capability and Certifications

The Contracting Authority may undertake the following:

- a) obtain financial information to verify the Bidder's capacity to undertake the Work; and
- b) request certifications and other information required before contract award.

If a Bidder fails to demonstrate adequate financial resources to complete the Work, or fails to provide the certifications and additional information, the proposal will be considered non-responsive and given no further consideration.

#### 4.6.2 Contract Negotiations

Upon completion of the statement of work, the Contracting Authority will initiate the negotiations for the following:

- a) contract terms and conditions, as applicable;
- b) pricing and cost breakdown; and
- c) the provision by the Bidder of price support to substantiate the costs to Canada.

Failure to achieve consensus on any aspect of the negotiations will result in the proposal being set aside and not given any further consideration. If an agreement cannot be reached between Canada and the Bidder within 4 months from the date of notification of acceptance into the finalized pool of prequalified proposals, Canada reserves the right to stop negotiations with the Bidder and dissociate the prioritized funds.

#### 4.6.3 Contract Award

Upon completion of contract negotiations, Canada will internally recommend, for approval, contracts to be awarded.

# 4.7 Intellectual Property

The default position of Canada is to allow contractors to retain the Intellectual Property (IP) rights. For studies and concepts, the IP rights could be negotiated with the Bidders. Information on IP is available from the following sources:

Definition of IP under PWGSC's Standard Acquisition Clauses and Conditions Manual, found at: https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/3/2040/16

Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts, found at: http://www.ic.gc.ca/eic/site/068.nsf/eng/00005.html

Implementation Guide: Policy for Title to Intellectual Property Arising under Crown Procurement Contracts, found at: http://www.ic.gc.ca/eic/site/068.nsf/eng/h\_00001.html

## 4.8 Human and Animal Ethics

A project involving human subjects, human tissues, laboratory animals, or animal tissues, must not proceed without prior approval of the Bidder's Human Subjects Research Ethics Committee or the Partners' institutional Animal Care Committee and must not be conducted in contravention of the respective Committee's conditions of approval.

#### PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a proposal non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the proposal evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the proposal non-responsive or constitute a default under the Contract.

#### 5.1 Certifications Required with the Proposal

Bidders must submit the following duly completed certifications as part of their proposal.

#### 5.1.1 Canadian Content Certification

# Canadian Content Certification – Conditionally Limited

This procurement is conditionally limited to Canadian goods and Canadian services.

Subject to the evaluation procedures contained in the bid solicitation, Bidders acknowledge that only bids with a certification that the goods and services offered are Canadian goods and Canadian services, as defined in clause A3050T, may be considered.

Failure to provide this certification completed with the bid will result in the goods and services offered being treated as non-Canadian goods and non-Canadian services.

The Bidder certifies that:

(\_\_\_) a minimum of 50 percent of the total bid price consists of Canadian goods and Canadian services as defined in paragraph 5 of clause A3050T, as amended herein.

For more information on how to determine the Canadian content for a mix of goods, a mix of services or a mix of goods and services, consult Annex 3.6.(9), Example 2, of the *Supply Manual* (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/5/A/A3053T/2).

5.1.1.a SACC Manual clause A3050T (2014-11-27), Canadian Content Definition, is amended as follows:

DELETE: 80 percent INSERT: 50 percent

#### 5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the proposal but may be submitted afterwards. If any of these required certifications or additional information are not completed and submitted as requested, the Contracting Authority will inform the Bidders of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame specified will render the proposal non-responsive.

## 5.2.1 Integrity Provisions – Required Documentation

In accordance with the Ineligibility and Suspension Policy (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **Integrity Provisions – Declaration of Convicted Offences**

In accordance with the *Ineligibility and Suspension Policy* (http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

## 5.2.2 Federal Contractors Program for Employment Equity

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the Employment and Social Development Canada (ESDC) – Labour's website

(http://www.esdc.gc.ca/en/jobs/workplace/human\_rights/employment\_equity/federal\_contractor\_program.page?&\_ga=1.229006812.1158694905.1413548969#afed).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid"list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

For contracts receiving funds over \$1,000,000.00:

The Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

5.2.3 Federal Contractors Program for Employment Equity - Certification A Bidder's signature constitutes a confirmation to the effect that:

"I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below."

The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be

untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity, visit the website:

http://www.labour.gc.ca/eng/standards\_equity/eq/emp/fcp/index.shtml. (YYYY/MM/DD) Date: (If left blank, the date will be deemed to be the bid solicitation closing date.) Complete both A and B. A. Check only one of the following: A1. The Bidder certifies having no work force in Canada. ( ) ( ) A2. The Bidder certifies being a public sector employer. ( ) A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act. ( ) The Bidder certifies having a combined work force in Canada of less than 100 A4. employees (combined work force includes: permanent full-time, permanent part-time and temporary employees [temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students]). A5. The Bidder has a combined workforce in Canada of 100 or more employees; and ( ) A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC- Labour Program. OR ( ) A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC- Labour Program. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour. B. Check only one of the following: ( ) B1. The Bidder is not a Joint Venture. OR ( ) B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex FCP for Employment Equity -Certification. (Refer to the Joint Venture section of the Standard Instructions.)

# 5.2.4 Former Public Servant Certification

Contracts awarded to former public servants (FPSs) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, Bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

**Definitions:** For the purposes of this clause:

"former public servant" is any former member of a department as defined in the <u>Financial</u> <u>Administration Act</u>, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a) an individual;
- b) an individual who has incorporated;
- c) a partnership made of former public servants; or
- d) a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S. 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

5.2.5 Former Public Servant in Receipt of a Pension
As per the above definitions, is the Bidder a FPS in receipt of a pension? Yes ( ) No ( )

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a) name of former public servant; and
- b) date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a FPS in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

#### 5.2.6 Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive?

YES ( ) NO ( )

If so, the Bidder must provide the following information:

- a) name of former public servant;
- b) conditions of the lump sum payment incentive;

- date of termination of employment;
- d) amount of lump sum payment;
- e) rate of pay on which lump sum payment is based;
- f) period of lump sum payment including start date, end date and number of weeks;
- g) number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including applicable taxes.

#### 5.2.7 Controlled Goods

Will the resulting contract involve controlled goods?

YES ( ) NO ( )

For further information on the Controlled Goods Program, visit the website: <a href="http://ssi-iss.tpsgc-pwgsc.gc.ca/dmc-cgd/index-eng.html">http://ssi-iss.tpsgc-pwgsc.gc.ca/dmc-cgd/index-eng.html</a>.

## 5.2.8 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

#### 5.2.9 Procurement Business Number

Suppliers are required to have a Procurement Business Number (PBN) prior to contract award in order to receive a PWGSC contract. Suppliers may register for a PBN online at Supplier Registration Information (https://srisupplier.contractscanada.gc.ca). For non-Internet registration, suppliers may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

PBN:				

#### 5.2.10 Rate or Price Certification

The Bidder is requested to provide one (1) of the following certifications, as applicable, in its financial bid:

The Bidder certifies that the price proposed is based on costs computed in accordance with Contract Cost Principles 1031-2, and includes an estimated amount of profit of						
-OR The Bidder certifies that the price proposed						
<ul> <li>a) is not in excess of the lowest price charged anyone else, including the Bidder's most favoured customer, for the like quality and quantity of the goods, services or both;</li> <li>b) does not include an element of profit on the sale in excess of that normally obtained by the Bidder on the sale of goods, services or both of like quality and quantity, and</li> <li>c) does not include any provision for discounts to selling agents.</li> </ul>						
-OR The Bidder certifies that the price proposed is based on costs computed in accordance with 10.40 (a) to (i) of the Supply Manual, Public Works and Government Services Canada, on the pricing of research and development contracts with universities and colleges.						
5.2.11 Education and Experience The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.						
5.2.12 Certification Acknowledgment The Bidder certifies that the information submitted herein, and the information submitted in its bid, is accurate and complete.						
The Bidder has read, understands and acknowledges the instructions and the clauses and conditions contained in all parts of the solicitation document.						
By signing below the signatory authorizes the above and that he or she is an authorized signing officer of the Bidder.						
Print Name: Signature: Date:						

## PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

# **6.1 Security Considerations**

Resulting Contractors may be required to possess valid security clearances, depending on the nature of the project, in order to have access to information and/or sites necessary for its execution. DRDC will determine the level of security required and will be responsible for establishing a Security Requirements Check List (SRCL). The Contracting Authority will communicate such requirements to the Bidder at Stage 2.

Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder time to obtain the required clearance will be at the discretion of the Contracting Authority.

For additional information on security requirements, Bidders should refer to the Industrial Security Program - visit the website: http://ssi-iss.tpsgc-pwgsc.gc.ca/index-eng.html.

## 6.2 Financial Capability

SACC Manual clause A9033T (2012-07-16), Financial Capability

## 6.3 Controlled Goods Program - Bid

SACC Manual clause A9130T (2014-11-27), Controlled Goods Program

#### **PART 7 - RESULTING CONTRACT CLAUSES**

The instructions, clauses and conditions identified below, are provided as an example of the standard terms and conditions that could form part of any resulting Contract and do not represent a complete list. PWGSC may update, add or delete, as applicable, the standard terms and conditions contained herein.

1.	Statement	of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex	
--	--

#### 1.1 Work Authorization

Despite any other condition of the C	ontract, the Contra	actor is only authorized to perforn	n the Work
required to complete of	f the Contract	at a cost not to exceed \$	Upon
completion of, the W	ork will be reviewe	ed before the Contractor is author	rized to
commence any Work for	Depending or	ι the results of the review and eva	luation of the
Work, Canada will decide at its discre	etion whether to c	ontinue with the Work.	
If Canada decides to continue with _	, the Co	ontracting Authority will advise the	e Contractor in
writing to commence work on	The Contract	or must immediately comply with	the notice.
If Canada decides not to proceed wit	th <i>,</i> tł	ne Contracting Authority will advis	e the
Contractor in writing of the decision	and the Contract v	will be considered completed at no	o further costs
to Canada. In no event will the Contr	ractor be paid for a	any cost incurred for unauthorized	l work.

## 2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the *Standard Acquisition Clauses and Conditions* Manual (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) issued by Public Works and Government Services Canada.

#### 2.1 General Conditions

2040 (2016-04-04), General Conditions - Research & Development, apply to and form part of the Contract.

#### 2.2 Supplemental General Conditions

The following supplemental general conditions apply to and form part of the Contract:

4001 (2015-04-01), Hardware Purchase, Lease and Maintenance

4002 (2010-08-16), Software Development or Modification Services

4003 (2010-08-16), Licensed Software

4004 (2013-04-25), Maintenance and Support Services for Licensed Software

4008 (2008-12-12), Personal Information

# 3. Security Requirement

The following security requirement (SRCL and related clauses) applies and form part of the Contract. TBD

Or no security requirement applies.

#### 4. Term of Contract

The Work is to be performed during the period of To be Determined (TBD) to TBD.

## 5. Comprehensive Land Claim Agreements (CLCAs)

TBD at each individual contract, as detailed in Part 1 of the bid solicitation.

#### 6. Authorities

## 6.1 Contracting Authority

The Contracting Authority for the Contract is:

TBD at each individual contract

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

## 6.2 Technical Authority

The Technical Authority for the Contract is:

TBD at each individual contract

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

#### **6.3 Procurement Authority**

The Procurement Authority for the Contract is:

TBD at each individual contract

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

## 6.4 Contractor's Representative

TBD at each individual contract

## 7. Proactive Disclosure of Contracts with Former Public Servants

SACC Manual Clause A3025C (2013-03-21)

#### 8. Payment

#### 8.1 Basis of Payment - Firm Price

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price, as specified in Annex TBD for a cost of \$ TBD . Customs duties are included and Applicable Taxes are extra, if applicable.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work.

-OR-

## 8.1 Basis of Payment - Ceiling Price

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex TBD , to a ceiling price of \$TBD.

Customs duties, and excise taxes are included and Applicable Taxes are extra, if applicable.

The ceiling price is subject to downward adjustment so as not to exceed the actual costs reasonably incurred in the performance of the Work and computed in accordance with the Basis of Payment.

-OR-

## 8.1 Basis of Payment -Limitation of Expenditure

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex TBD, to a limitation of expenditure of \$TBD. Customs duties are included and Applicable Taxes are extra.

#### 8.2 Limitation of Price

SACC Manual Clause C6000C (2011-05-16), Limitation of Price

## 8.3 Method of Payment

# 8.3.1 Progress Payments (for Ceiling Price Basis and Limitation of Expenditure Basis of Payments)

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work up to TBD percent of the amount claimed and approved by Canada if:

- a) an accurate and complete claim for payment using form PWGSC-TPSGC 1111(http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b) the amount claimed is in accordance with the Basis of payment;
- c) the total amount for all progress payments paid by Canada does not exceed TBD percent of the total amount to be paid under the Contract;
- d) all certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives.
- 2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.

#### 8.3 .1 Milestone Payments (for Firm Price Basis of Payment)

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in Annex TBD and the payment provisions of the Contract if:

- an accurate and complete claim for payment using form PWGSC-TPSGC 1111 (http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf) ), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b) all the certificates appearing on form PWGSC-TPSGC 1111 have been signed by the respective authorized representatives;
- c) all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

#### **8.4 SACC Manual Clauses**

A9117C (2007-11-30), T1204 - Direct Request by Customer Department C0305C (2014-06-26), Cost Submission – Limitation of Expenditure or Ceiling Price C4005C (2014-06-26), Travel and Living Expenses - National Joint Council Travel Directive

## **8.5 Discretionary Audit**

SACC Manual Clause C0101C (2010-01-11), Discretionary Audit - Non-commercial Goods and/or Services

-OR-

SACC Manual Clause C0102C (2010-01-11), Discretionary Audit - Canadian Universities and Colleges

-OR-

SACC Manual Clause C0705C (2010-01-11), Discretionary Audit

#### 8.6 Time Verification

SACC Manual Clause C0711C (2008-05-12), Time Verification

## 9. Invoicing Instructions

1. The Contractor must submit a claim for progress payment using form PWGSC-TPSGC 1111 (http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/1111.pdf), Claim for Progress Payment.

Each claim must show:

- a) all information required on form PWGSC-TPSGC 1111;
- b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
- c) a list of all expenses;
- d) the description and value of the milestone claimed as detailed in the Contract.

Each claim must be supported by:

- a) a copy of time sheets to support the time claimed;
- b) a copy of the invoices, receipts, vouchers for all direct expenses, and all travel and living expenses;
- c) a copy of the monthly progress report.
- 2. Applicable Taxes must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no Applicable Taxes payable as it was claimed and payable under the previous claims for progress payments.
- 3. The Contractor must prepare and certify an original claim on Form PWGSC-TPSGC 1111, and forward it to the Contracting Authority for certification in an electronic format to the electronic mail address identified under section entitled "Authorities" of the Contract. Portable Document Format (.pdf) format is acceptable. The Contracting Authority will then forward the certified claim, in an electronic format, to the Technical Authority for appropriate certification after inspection and acceptance of the Work takes place, and onward submission to the Payment Office for the remaining certification and payment.
- 4. The Contractor must not submit claims until all work identified in this claim is completed.

#### 10. Certifications

#### 10.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the entire contract period. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 10.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

#### 10.3 SACC Manual Clauses

a) the Articles of Agreement;

A3060C (2008-05-12), Canadian Content Certification

# 11. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in (to be inserted at contract award).

## 12. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

	b) the supplemental general conditions;
	c) the general conditions;
	d) Annex, Statement of Work;
	e) Annex, Basis of Payment;
	f) Annex, Security Requirements Check List;
	g) Annex, Insurance – Specific Requirements;
	h) the Contractor's proposal dated
13.	Foreign Nationals (Canadian Contractor OR Foreign Contractor)
	SACC Manual clause A2000C (2006-06-16) Foreign Nationals (Canadian Contractor
	OR
	SACC Manual clause A2001C (2006-06-16) Foreign Nationals (Foreign Contractor)
14.	Insurance
	SACC Manual clause G1005C (2016-01-28), Insurance – No Specific Requirement
	OR

#### 14. Insurance – Specific Requirements

The Contractor must comply with the insurance requirements specified in Annex \_\_\_\_\_. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. For Canadian-based Contractors, coverage must be placed with an Insurer licensed to carry out business in Canada, however, for Foreign-based Contractors, coverage must be placed with an Insurer with an A.M. Best Rating no less than "A-". The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

## 15. Controlled Goods Program

15.1 SACC Manual clause A9131C (2014-11-27), Controlled Goods Program - Contract

15.2 SACC Manual clause B4060C (2011-05-16), Controlled Goods

## 16. Canadian Forces Site Regulations

The Contractor must comply with all standing orders or other regulations, instructions and directives in force on the site where the Work is performed.

# 17. Joint Venture

- a) The Contractor confirms that the name of the joint venture is \_\_\_\_\_ and that it is comprised of the following members: [list all the joint venture members named in the Contractor's original bid].
- b) With respect to the relationship among the members of the joint venture Contractor, each member agrees, represents and warrants (as applicable) that:
  - i. \_\_\_\_\_ has been appointed as the "representative member" of the joint venture
     Contractor and has fully authority to act as agent for each member regarding all matters
     relating to the Contract;
  - ii. by giving notice to the representative member, Canada will be considered to have given notice to all the members of the joint venture Contractor; and
  - iii. all payments made by Canada to the representative member will act as a release by all the members.
- c) All the members agree that Canada may terminate the Contract in its discretion if there is a dispute among the members that, in Canada's opinion, affects the performance of the Work in any way.
- d) All the members are jointly and severally or solidarily liable for the performance of the entire Contract.

- e) The Contractor acknowledges that any change in the membership of the joint venture (i.e., a change in the number of members or the substitution of another legal entity for an existing member) constitutes an assignment and is subject to the assignment provisions of the General Conditions.
- f) The Contractor acknowledges that all security and controlled goods requirements in the Contract, if any, apply to each member of the joint venture Contractor.

**Note to Bidders:** This Article will be deleted if the Bidder awarded the Contract is not a joint venture. If the Contractor is a joint venture, this clause will be completed with information provided in its bid.

#### Annex A - Project Types

The types of projects that will be considered for this CFP are:

- Studies;
- Concepts;
- Research and Development;
- Technology Demonstrations; and
- Technology Pilots.

Each project type, except studies, covers a Technology Readiness Level (TRL) range. A TRL is a measure that evaluates the maturity of evolving technology – which include, for example, devices, materials and software (refer to Annex I).

## Studies

Studies are evidence-based examinations or analyses that address known defence, security, or safety issues, define problems or propose options that require investigation. Studies can provide operational research tools and methods, including risk, capability and foresight analyses, or road-mapping to define operational needs and/or aid in prioritizing investment decisions. Studies can vary considerably in scale and complexity. Studies analyse key issues with rigour but the scope of the analysis is managed so as to be both feasible and attainable with limited time-frames and resources (including funding). Examples include conducting scoping studies or developing emergency response scenarios that help define needs.

#### Concepts

Concepts provide a more in-depth analysis of the issues and solution options than studies. Typically, these include an analysis of problems as well as potential solutions taking into account technological, operational, environmental, policy, governance, and regulatory aspects where applicable. Concepts usually include a comprehensive environmental scan that covers the scientific, technological and operational landscapes to ensure the analysis is up-to-date. Often there is broad consultation with a variety of Subject Matter Experts (SMEs).

#### Research and Development (R&D)

R&D projects involve applied research in scientific or technological fields that may generate new knowledge or awareness while addressing user-defined capability gaps in critical areas. R&D projects include analytical research, laboratory studies and experiments that mature earlier findings. R&D projects can also validate analytical predictions of existing S&T or enable 'proof-of-concept' validation.

# **Technology Demonstrations**

Technology demonstrations are projects that advance the maturity of a technology, application or capability by embedding S&T in an operational context. These projects foster collaboration between operational and S&T communities. They integrate basic technological elements that can be tested in a 'simulated' or realistic environment. Technology demonstrations test the applicability of a TRL solution

to address a capability gap. This project type usually does not transition directly into implementation or operationalization as additional development may still be required.

# **Technology Pilots**

Technology pilots, which are sometimes referred to as feasibility studies or experimental trials, are projects that involve the implementation of a known solution on a small-scale to evaluate its full impact, strengths and weaknesses prior to full implementation. This project type allows for the collection of information to adequately learn how the solution might work in practice.

# **Project Parameters**

The table below identifies maximum project parameters. The funding range per project will be identified for each S&T Challenge (refer to Annex B).

Project Types	Studies	Concepts	Research & Development	Technology Demonstration	Technology Pilot
Project Duration from Initiation to Close-Out	≤ 12 months	≤ 24 months	≤ 36 months	≤ 36 months	≤ 36 months
Funding Range per air, surface, and sub- surface surveillance streams	≤ \$250K	≤ \$750K	≤ \$3.0M	≤ \$6.0M	≤ \$9.0M
Funding Range per Public Safety and Security Streams	≤ \$125K	≤ \$250K	≤ \$1.0M	≤ \$1.5M	≤ \$2.0M
TRL Range	not applicable	TRL 1-3	TRL 3-4	TRL 5-7	TRL 7-9

## **Sequential Projects**

This CFP allows for sequential projects that address a single S&T Challenge. As a result, multiple proposals can be submitted that span more than one project type and demonstrate progression of technological maturity (i.e. TRL). For sequential projects, Bidders must identify each proposal as part of a sequential project, the total number of proposals for the sequential project, and one separate proposal must be submitted for each project type. Each project type under a sequential project will be evaluated separately.

The maximum funding for any sequential project cannot exceed the sum of all amounts listed in the project parameters, Applicable Taxes included, and the duration of sequential projects cannot exceed 36 months.

Where a sequential proposal is submitted by a Bidder, Canada may award one or more or no contracts for each and/or all of the project types.

Go/No-Go clauses will be included in any resulting contract that spans project types, and it will be Canada's decision whether to proceed to the next project.

## Example:

Bidder ABC submits a sequential project that comprises two proposals consisting of the following:

**Proposal One** 

Project Type: Concepts DRDC Funding: \$500K Duration: 12 months

**Proposal Two** 

Project Type: Research and Development

DRDC Funding: \$3M Duration: 24 months

Total DRDC Funding: \$3.5M Total Duration: 36 months

## Annex B - S&T Challenges

For this CFP, the following S&T Challenges have been identified:

- a) Stream A: Air, Surface, and Sub-Surface Surveillance, and Sensor/Information Mixes S&T Challenges
- b) Stream B: Public Safety and Security S&T Challenges

For Stream A Challenges identified below, the following are excluded from the scope of the Challenges:

- i) Data fusion, integration and higher level manipulation including displays and Command and Control; and
- ii) Consideration of land, space and cyber threats.

# Stream A

#### <u>Air Surveillance</u>

- 1) Identify and assess innovative solutions and technologies for detection, identification, tracking and classification of airborne objects of interest like long range cruise missiles, long range aviation, and high speed manoeuvering weapons (<a href="https://www.nap.edu/catalog/23667/a-threat-to-americas-global-vigilance-reach-and-power-high-speed-maneuvering-weapons">https://www.nap.edu/catalog/23667/a-threat-to-americas-global-vigilance-reach-and-power-high-speed-maneuvering-weapons</a>), including:
  - a) Identification and assessment of future sensing technologies and platforms (e.g. combinations thereof surface radar, air-borne and/or space-based electro-optical/infrared (EO/IR), over the horizon radar (OTHR), aerostat, forward deployed, reflective high power optics, passive radio frequency (RF), Electronic Intelligence, etc.) for detection and tracking of air targets;
  - b) Evaluation of radar technologies for long-range detection, tracking and cueing of air targets (with emphasis on the North), including technologies and signal processing techniques applicable to target detection such as bi-static Air Moving Target Indication (AMTI);
  - c) Consideration of environmental effects (e.g. RF clutter, cloud, aerosols, ionospheric and atmospheric properties and effects, etc.) on surveillance system performance;
  - d) Handling of multiple simultaneous airborne objects of interest;
  - e) Detection of long range cruise missile and high speed manoeuvering weapons launch; and
  - f) Pattern of life monitoring of foreign infrastructure.
- 2) Assess and mitigate surveillance system vulnerabilities (e.g. energy/power requirement, jamming, deception, capture, etc.).

# Surface Surveillance

- 3) Identify and assess innovative solutions and technologies for detection, discrimination, localization, classification and tracking of maritime surface objects using space, air, land, surface and subsurface platforms as well as relevant information resources. Of particular interest is:
  - a) Detection and improved discrimination of surface threats in presence of high vessel traffic, sea ice, debris, clutter, etc.;
  - b) Coverage, resolution and persistence of innovative solutions and technologies; and
  - c) Consideration of environmental effects on surveillance system performance.

4) Assess and mitigate surveillance concept vulnerabilities (e.g. energy/power requirement, jamming, deception, capture, etc.).

#### Sub-Surface Surveillance

- 5) Identify and assess the viability and performance of existing and future surveillance solutions, technologies and methodologies for detection, localization, classification and tracking of underwater vehicles and other objects of interest to improve underwater warning and surveillance in blue water and littoral environments, including:
  - a) Long range deployable autonomous underwater/under-ice surveillance capabilities of increased endurance (months) and range (beyond 1000 km);
  - Surface and underwater/under-ice multi-function service "docking nodes" potentially housing charging stations (for deployable autonomous underwater/under-ice surveillance capabilities), communications, data processing, and sensors;
  - c) Consideration of environment on surveillance system performance;
  - d) Detection of underwater missile launch; and
  - e) Applications of airborne sensors to monitor underwater signals and communications.
- 6) Assess and mitigate surveillance concept vulnerabilities (e.g. energy/power requirement, jamming, deception, capture, etc.).

#### Sensor and Information Mixes

- 7) Projects involving the complementarity and interactions between disparate sensors and information sources in order to provide the flexibility for future acquisitions to determine the appropriate sensor and information mixes that deliver effective, responsive, resilient and affordable surveillance of Canada's approaches including Canada's Arctic region. This encompasses all identified environments (air, maritime surface and maritime sub-surface) including consideration of:
  - a) Identification and selection standard of sensor mixes and their placements on space, air, land, surface and subsurface platforms across all of the identified domains (air, maritime surface, maritime sub-surface);
  - b) Management and exchange of information of interest to DND/CAF across the identified domains to support strategic and operational decision making; and
  - c) Concepts of employment for layered surveillance systems and future joint strategic surveillance architectures.
- 8) Environmental effects on surveillance system performance including:
  - a) Assessment of the performance and limitations of the surveillance system in various environmental conditions;
  - b) Real time estimation of operational surveillance system performance in situ; and
  - c) Methods to limit environmental effects on surveillance system performance.

#### Stream B

### Public Safety and Security

- 9) S&T projects that improve understanding of critical infrastructure (CI) vulnerabilities and their relative importance by better understanding and quantifying:
  - a) the risks associated with insider threats and mechanisms to mitigate this risk; or
  - b) the global impact and risk of counterfeit, fraudulent, suspect items (CFSI) to CI, including both hardware and software. Examples include nuclear power plants, aviation, transportation, medical equipment; or
  - c) the CI vulnerabilities associated with global navigation satellite system (GNSS) failures and how to mitigate those vulnerabilities; or
  - d) the risks and vulnerabilities with cyber-attacks related to connected vehicles, and how the cybersecurity posture of connected vehicles can be improved.
- 10) S&T projects that enable pre-event anticipation, prevention, detection, intelligence, and/or defeat of threats to CI by better understanding:
  - a) how to enhance intelligence and operations that strengthen Canada's ability to anticipate, prevent, and prepare for acts of cybercrime, terrorism and espionage by developing, testing, and validating new surveillance and interdiction technologies or analytical tools or systems that would assist national security, law enforcement and intelligence agencies and regulatory bodies in identifying criminals and criminal organizations terrorists, terrorist organizations, and individuals with malicious intent, their capabilities and the nature of their plans, and their supporters and counter the threat of proliferation of subject matter expertise; or
  - b) how the psycho-social aspects of risk perception among CI owners and operators (inclusive of cyber systems) can be improved to enhance CI resilience, for example through the implementation of specific risk mitigation measures.
- 11) Innovative S&T projects that enhance domain awareness in border regions, including air, land, maritime, remote and arctic environments, to support public safety and security partners and their priorities.
- 12) S&T projects that enhance the secure and efficient flow of goods and people at ports of entry by better understanding:
  - a) how to exploit data analytics techniques for automated targeting of cargo and travellers at the border; or
  - b) how to develop or evaluate screening technologies to detect weapons, explosives, contraband, currency or human trafficking; or
  - how to enhance the cyber security of international supply chains or traveller authentication systems; or
  - d) how to enhance the automation of traveller authentication and processing systems and cargo screening systems to reduce bottlenecks; or
  - e) how to strengthen border security to prevent radiological-nuclear material smuggling and in particular enhance special nuclear material (SNM) detection.
- 13) S&T projects that investigate remaining gaps associated with locating, characterizing, and securing Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) materials that are out of regulatory control.

- 14) S&T projects that generate field-deployable technologies to enhance non-intrusive stand-off detection and identification of non-traditional agents including toxic industrial chemicals (TICs) /toxic industrial materials (TIMs), homemade explosives and natural, synthetic or semi-synthetic opioids.
- 15) S&T projects which address threat from small unmanned aerial vehicles (aka "drone"), by experimental assessment of the effects of the drone impact on manned aircraft, or by development of capabilities or systems to protect against threats from small unmanned aerial vehicles (aka 'drones') against personnel, facilities, or critical infrastructure. The proposed developmental capabilities/systems must provide integrated detection, identification, and/or mitigation of the threat using any electronic or other means of detection, and using mitigation method(s) which pose no danger to bystanders.

Previous CSSP work has established performance and limitations of existing capabilities, as follows:

#### Detection/Classification:

- Radar 1+ km detection, 500m classification by micro-doppler giving very low false alarm rate (FAR), 10+ second multi-sweep detection, azimuth and elevation indication, 10-20 deg vertical scan.
- Electro-optical 1 km detection with staring HD camera, fairly high FAR, requirement for high-contrast background, some capability for automatic classification but mostly requires operator confirmation.
- Infrared 300m detection with staring camera, see EO.
- Acoustic 200m detection, low detection rate and high FAR, easily masked by noise environment, rough azimuth indication.
- Radio Frequency (RF) 1+ km detection of proprietary protocols in 2.4 and 5.8 GHz bands, some identification of drone type, rough azimuth indication, not automatic. Not interested in 802.11 wifi protocol.

## Mitigation:

- Counter-Drone Drone net towed by other drone, net guns fired from other drone, manually flown onto target using first person view.
- Launched Nets 70m with parachute lowering, manually aimed and shoulder launched.
   Handheld net guns to about 25m with no parachute.
- o RF Spoofing to about 1km, some ability to 'crack' proprietary protocol and provide control directions to the drone. Not automatic, not reliable.
- Jamming barrage jamming of RF and GPS signals to 700+ m, manually initiated, directional and 360 deg.

#### System:

- No integrated response chain, limited automated response, limited integration of different capabilities.
- Poor user interface.

This Challenge will accept proposals which include at least one of the following:

- demonstrate significant improvement in the performance or reduction in limitations of capabilities listed above;
- demonstrate integration of capabilities into an automated response chain;
- identify and develop new capabilities not listed above; and/or
- provide capabilities with a significant reduction in cost.

- 15) S&T projects that examine data-driven and/or innovative solutions to reduce the accidental risks to first responders from being struck by vehicles while operating on roadways and in all-weather situations.
- 16) S&T projects that result in novel solutions that:
  - a) apply wearable technologies to connect first responders and allow them to send and receive real-time actionable data during operations to identify and monitor threats, hazards and environmental conditions in which first responders operate; or
  - b) protect non-specialist responders from hazardous or infectious substances with technologies that are built into their daily wear uniforms. The proposed technology could both alert first responders to contaminant danger as well as provide a minimum level of protection from the danger during the course of normal operations.
- 17) S&T projects that improve communications interoperability between first receivers (hospital emergency department personnel) and first responders during the triage of mass casualties, including the design of mobile applications that can be utilized to transfer critical information during an event.
- 18) S&T projects that support whole-of-society resilience to all-hazard risks through the development of specific methodologies and tools for community, regional, and national-level assessment of risk and resilience by:
  - a) developing or enhancing risk-related datasets (e.g., exposure, vulnerability, disaster loss), models, and scenarios, as well as disaster resilience metrics on the local to the national scale; or
  - developing risk assessments and geospatial systems that use datasets, models, or scenarios to represent or aggregate risks, are aligned with international best practice methodologies and standards (for example the United Nations Office for Disaster Risk Reduction (UNISDR) guidelines, databases and statistics), and enhance consistency across jurisdictions;
- 19) S&T projects that engage under-represented stakeholders such as youth, women, first nations, and persons with disabilities, using participatory action research methods, in order to leverage their strengths and to capture their special requirements in the development and evaluation of strategies for increased inter-disciplinary resilience that are scalable at the community, regional, and national level.
- 20) S&T projects that explore innovative approaches such as crowd-sourcing and social technologies for community engagement on specific local factors (e.g., economic, social, environmental and cultural); patterns; causes; or effects relevant to risk and resilience assessments.
- 21) S&T projects that strengthen the evidence base in support of disaster risk reduction (DRR), particularly for extreme weather events and climate change, and assist to establish a Canadian value on the return on investment (ROI) of DRR activities.
- 22) S&T projects that enhance the data collection and analytics as well as research that informs the prevention and mitigation of post-traumatic stress injuries (PTSI) in the first responder community.
- 23) S&T projects that innovate to improve preparedness against risks derived from extreme weather events and climate such as hazards monitoring and forecasting capabilities, early warning systems, emergency communication systems, that engage community-level stakeholders

- 24) S&T projects that help strengthen communities' resistance to extremist influences, and support effective evidence-based interventions and countermeasures to fight violent extremism and terrorism by:
  - a) investigating factors/dynamics related to families, peer networks, gender, trauma, and mental health; the investigation encompasses how they manifest both in terms of vulnerability/risk and mitigating/protective effects, with a view to develop screening/assessments to inform programs to prevent, intervene or disengage and re-integrate vulnerable individuals; or
  - b) exploring how broad social, economic, political, and demographic trends manifest at local levels and affect communities, either negatively through increased threat of radicalization to violence or other types of serious crime, or positively through 'resilient' forms of reaction, such as community based efforts towards integration, support to vulnerable community members, reconciliation, and peace-building; or
  - c) leveraging lessons learned from public health research and practice about effective interventions to influence behavior at the population, community and individual level (interventions that range, for example, from broad public awareness campaigns to best practices for managing cases involving mental health and addictions), in order to support efforts in countering radicalization to violence and preventing involvement in other forms of serious crime.

#### **Annex C - Evaluation Criteria**

#### **C.1 Mandatory Criteria**

- 1) Identification of the one primary S&T Challenge listed in Annex B that your proposal is responding to.
- 2) The following information is to be submitted with the proposal.
  - a) List of Financial Support Solicited and/or Approved from Any Federal Program(s): If additional financial support for the project has been solicited and/or approved through programs offered by any federal government departments/agencies (including DRDC), such source of funding must be disclosed. Bidders can provide the information by uploading the Annex directly in the online submission form.

	Source of Funds	Amount	Fiscal Year	Pending/ Approved
1.				
2.				
3.				

## 3) Alignment

The Bidder must demonstrate how each project deliverable addresses, and aligns with, the selected S&T Challenge (750 words maximum) – which includes:

- a) Scope and objectives of the proposal;
- b) identification of the project output;
- c) identification of how the project output addresses elements of, and aligns with, the selected S&T Challenge.

Evaluation Schema	
The proposal does not clearly identify how the project output will address and align with the selected S&T Challenge. The proposal is assessed as incomplete and/or without relevance to the S&T Challenge.	Fail
The proposal clearly articulates how the project output is addressed and is aligned with the selected - S&T Challenge. As assessed, relevant alignment with the selected S&T Challenge has been clearly addressed.	Pass

- 4) Is only applicable for proposals responding to Public Safety and Security S&T Challenges (Stream B):
  - a) Identification of a partnership that includes:
    - i) a Canadian Government Department<sup>1</sup>; and
    - ii) a different Government department from 4.a.i above or any other partner.
  - Submission of a completed Partner Signature Form as set out in Annex H. Signatures must, at minimum, be at:

<sup>&</sup>lt;sup>1</sup> Details on partnerships and a definition of qualified Canadian Government Department are included in part 3, section 3.1-Who May Apply?

- i) Director General level, at the time of proposal submission, for the federal government; and
- ii) A level acceptable for provincial/territorial/municipal level of government to authorize the financial and operational commitment of its organization for the proposal.

#### C.2 Point-Rated Evaluation Criteria

Proposals that satisfy the mandatory criteria will be evaluated on the following point-rated criteria. No partial points will be awarded. The audience for the responses is evaluators who are Subject Matter Experts (SMEs). The evaluators are, therefore, skilled in the relevant Challenge area and this affords an informed and objective lens for the evaluation process.

1. Scientific and/or Technical Merit, including the Feasibility, and Approach, Merit, Originality, Innovative benefit and the impact – Maximum of 90 points and mandatory minimum score of 63.

## a) Feasibility<sup>2</sup> and Approach.

The Bidder should identify the project's feasibility and approach to address the selected S&T Challenge – which includes, in a maximum of 750 words:

- i) Adequately developed, well-reasoned, and appropriate approach for the proposal;
- ii) Proposed deliverables clearly define a solution that meets the S&T Challenge;
- iii) Feasibility of the proposed solution

Evaluation Schema	Points
The feasibility and approach provide no evidence to any of the three elements detailed above.	0 points
The feasibility and approach demonstrate one or two elements above, but does not clearly articulate more than 1 element. Although the Bidder presents some of the information required, the proposal lacks the clarity to permit any concrete analysis.	8 points
The Bidder has clearly articulated the feasibility and approach of 2 of the 3 elements above but does not clearly articulate more than 2 elements. There is adequate information to see a description of the feasibility of the proposal, the technical concept is developed, and deliverables define a solution.	14 points
The Bidder has clearly articulated the feasibility and approach of all 3 elements above. There is a clear explanation of the feasibility of the project, the technical concept is developed, and well-reasoned and appropriate, deliverables clearly define a solution that meets the proposed S&T Challenge.	20 points

<sup>&</sup>lt;sup>2</sup>Feasibility: The determination of the evaluation team based on the information in the proposal, as to whether the proposed solution is applicable and could be accomplished in practice in Canada.

## b) Scientific and/or Technical Value.

The Bidder must demonstrate the scientific or technical merit, as detailed in the three elements below, of the approach, in a maximum of 1000 words:

- i) the scientific and/or technical elements are completed in a logical sequence;
- ii) State of the art thinking and practice in the relevant methodological area, analytical approach, and relationships being tested or explored and;
- iii) Consideration of Gender Based Analysis Plus (GBA+)<sup>3</sup>

GBA+ analysis, should include responses to the following questions:

- a) Does your application have relevant GBA+ aspects?
- b) If yes, describe your analysis and findings.
- c) If not, explain why you did not consider GBA+ or why your proposal does not have relevant GBA+ aspects.

Evaluation Schema	Points
The scientific or technical merit provides no evidence to any of the three elements detailed above.	0 points
Although the Bidder presents some of the information requested, the proposal lacks the depth to permit any concrete analysis.	12 points
The Bidder has clearly articulated the scientific or technical merit of at least 2 of the 3 elements above but does not clearly articulate more than 2 elements. The deliverables are clear, the methodology is up to date, the technical elements are logical.	21 points
The Bidder has clearly articulated the scientific or technical merit of all 3 elements above. The deliverables are clear, the methodology is up to date, GBA+ has been considered, the technical elements are logical.	30 points

<sup>&</sup>lt;sup>3</sup> Gender Based Analysis Plus (GBA+)<sup>3</sup> as defined by the Treasury Board Secretariat of Canada: <a href="https://www.tbs-sct.gc.ca/hgw-cgf/oversight-surveillance/tbs-pct/gba-oacs-eng.asp">https://www.tbs-sct.gc.ca/hgw-cgf/oversight-surveillance/tbs-pct/gba-oacs-eng.asp</a>. It is encouraged to also refer to the following website: <a href="http://www.swc-cfc.gc.ca/gba-acs/index-en.html">http://www.swc-cfc.gc.ca/gba-acs/index-en.html</a>.

## c) Novel and Innovative

The Bidder should demonstrate how the proposal is novel and innovative over existing solutions (for example, how is this project a game changer?) and should include, in a maximum of 1000 words:

- identification of how new knowledge, science and/or technology improvements (including novel<sup>4</sup> concepts, approaches or methodologies, tools, or technologies) are integrated;
- examples of enhanced capabilities and/or improved efficiencies over the current state of the art;
- iii) The proposed work has innovation<sup>5</sup> potential to lead to creating new knowledge and/or technology enhancement over existing solutions.

Evaluation Schema	Points
The proposal has not addressed the elements above and/or completing this work would not lead to creating new knowledge or technology enhancements over current existing solutions.	0 points
Although the Bidder presents some of the information required, the proposal lacks the depth to permit sufficient knowledge of how the proposal is novel and innovative.	8 points
The Bidder has shown innovation and novelty by addressing at least 2 of the 3 elements above but does not clearly articulate more than 2 elements. The work has the potential to be innovative over existing solutions.	14 points
The Bidder has clearly shown the innovative and novel nature of the proposal by addressing all elements above. The work is innovative, novel and the concepts are well integrated.	20 points

## <sup>5</sup> Innovation:

<sup>&</sup>lt;sup>4</sup> **Novel:** Is not commonly known or not an obvious derivative of an existing way of doing things.

A new technology or new process that is not currently available in the marketplace.

Significant modifications to the application of existing technologies/process that are applied in a setting or condition for which current applications are not possible or feasible.

An improvement to an existing technology/process that represents a significant (generally patentable) improvement in functionality, cost or performance of goods and services that are considered state-of-the-art or the current industry best practice.

## d) Impact

The Bidder should demonstrate how their solution will have an impact in the selected S&T Challenge. The information should include the following, in a maximum of 1000 words:

- i) Identification and explanation of the gap or critical barrier in the S&T Challenge that the solution is addressing;
- ii) If the aims of the project are achieved, how will scientific knowledge and/or technical capability be improved;
- iii) How will successful completion of the aims change the concepts, methods or technologies that drive this field;
- iv) Does the proposed project have commercial potential to lead to a marketable product, process or service.

The Bidder may provide support letters from stakeholders, who are not named project partners, indicating their interest in the work. Support letters from named project partners will not be considered.

Evaluation Schema	Points
The proposal has not addressed the elements listed above; and/or completing this work would not lead to an impact in the selected S&T Challenge.	0 points
Although the Bidder presents some of the information required by addressing 2 of the 4 elements above, the proposal lacks the depth to permit any knowledge of how the solution will have an impact in the selected S&T Challenge.	8 points
The Bidder has shown some impact in the selected S&T Challenge by addressing at least 3 of the 4 elements above but does not clearly articulate more than 3 elements. The work has the potential to have an impact in the selected S&T Challenge.	14 points
The Bidder has clearly shown that the solution will have impact by addressing all elements above. The proposal is clear, the critical gaps are addressed. Completion of the project will have an impact in the selected S&T Challenge.	20 points

## 2. Work Plan - Maximum of 45 points

The assessment of the Bidder's proposed Work Plan is based on the evaluation elements and schema summarized below.

a) a Work Plan with adequate detail to identify milestones and deliverables with adequate detail to measure progress, in the format provided in Annex D.

For this criterion the Bidder's Work Plan should include the following elements of Annex D:

- i) Task Description: Describe the work to be done, including the technical methodology.
- ii) Deliverable: Describe the output of the task.
- iii) Lead: Identify who is responsible for task delivery/performance.
- iv) Special Procurement needs: Identify special procurement considerations (e.g. controlled goods and security issues, restricted materials, IP licenses) that may impact the project.
- v) Physical Resource needs: Identify physical resources needs (e.g. facilities and equipment) and provide adequate detail as to their accessibility.
- vi) Go/No-Go Decisions: Identify decision-points in the schedule or deliverable to be achieved that allows for the project to proceed to the next step, be terminated, or redirected.

Evaluation Schema	Points
The proposal has not addressed any of the elements listed above, the work plan is incomplete.	0 points
The proposal has addressed less than 3 of the elements listed above in detail, the deliverables are not clear, the work plan does not contain enough information to demonstrate completion of the project.	10 points
The proposal has addressed all of the elements above, only at a limited level; the proposal has not clearly articulated the elements. The work plan, while complete lacks detail and may not have considered all the elements to complete the project.	15 points
The proposal has addressed all of the elements and while it is more than a limited level, there is some detail lacking. The work plan provides a clear overview of the proposed project but did not consider all the elements to complete the project.	20 points
The proposal has clearly addressed all the elements in great detail. The work plan is complete and demonstrates that full consideration has been given to the proposed project and has considered all the elements to complete the project.	25 points

b) a cost estimate that is commensurate with the level of effort in relation to the project type and deliverables for the proposal, in the format provided in Annex E and in the Work Plan in Annex D.

#### Detail should include:

- i) Explanation of any significant costs (anything over 30% of the project cost);
- ii) That the proposed costs are realistic for the technical approach offered;
- iii) Substantiation of the proposed costs with the type and number of labour hours proposed per task as well as the types and kinds of materials, equipment and other associated costs proposed.

Evaluation Schema	Points
The costs are unrealistic, do not provide a practical understanding of the effort, and are undefined with regards to labour hours.	0 points
The proposal addresses 1 of the elements presented above in any detail. The costs	
are unrealistic, and do not provide a practical understanding of the technical	4 points
approach. The costs are undefined with regards to labour hours.	
The proposal addresses 2 of the elements presented above in good detail. The costs	
are realistic, and provide a practical understanding of the technical approach and	7 points
labour hours required. More detail is required for a full response.	
The proposal addresses all 3 elements with in-depth detail. All significant costs are substantiated.	10 points

- c) A risk mitigation strategy as provided in the Work Plan, Annex D.
  - i) The plan identifies potential risks associated with specific tasks as well as risk mitigation plans;
    - Risks: Identify the risk(s) associated with the task, as well as if it is a High, Medium or Low Risk and if the impact will be High, Medium or Low. Examples of `Risk Type` include: financial, schedule, scope, technical, IP issues. If no risk is anticipated enter N/A.
    - Mitigation: Identify the steps required to lessen the impact of the risk. If no risk is identified enter N/A.
    - Go/No Go points and off ramps: A proposal should demonstrate what considerations
      are in place for a project to end or adjust its path throughout its lifecycle. Key
      milestones and deliverables should be identified and linked to decision points on
      whether to proceed or end a project.

Evaluation Schema	Points
The risks and mitigation strategies are not defined. Go/No Go points are not identified.	0 points
The risks and mitigation strategies are identified, but the detail is lacking, or they are not well thought out. The risk plan may not have considered all the necessary elements to complete the project. Go/No Go points are not clearly identified.	4 points
The risks and mitigation strategies are well defined. The risk plan is complete and provides a clear overview of the proposed risks and Go/No Go points.	7 points
The risks and mitigation strategies are clear and very well defined. The risk plan is complete and demonstrates that full consideration has been given to all elements of the proposed project, including Go/No Go points.	10 points

#### 3. Project Manager and Key Personnel - Maximum of 25 points

The assessment of the Bidder's proposed project management plan (e.g. identification of the Project Manager and Key Personnel) is based on the evaluation elements and schema below.

## a) The Bidder should demonstrate:

i) that the identified Project Manager (or Principal Investigator for Studies and Concepts) has project management expertise that is commensurate with both the complexity and funding amount being requested by the proposal, in the format provided in Annex F. Minimum of three examples are required and examples should include enough detail to ascertain commensurability. The Bidder may describe how the Project Manager will coordinate with a team to deliver the project management capability (e.g. a Project Manager in one partner and a Deputy Project Manager in another partner).

Evaluation Schema	Points
The project manager has insufficient qualifications in project management expertise for the delivery of the project. These qualifications are described in a general way, and do not provide meaningful detail.	0 points
The project manager has demonstrated qualifications in project management expertise for the delivery of the project. These qualifications are described in some meaningful detail.	4 points
The project manager has significant qualifications in project management expertise for the delivery of the project. These qualifications are well described to ascertain commensurability.	7 points
The project manager has extensive experience and very significant qualifications in project management expertise for complete delivery of the proposal. These qualifications are fully described to ascertain commensurability.	10 points

b) Key members of the proposed project team, including sub-contractors, possess relevant experience and qualifications to undertake the scientific or technical elements required by the proposal, in the format provided in Annex G. One form per individual.

Evaluation Schema	Points
The key personnel have insufficient qualifications in technical expertise for the work proposed. These qualifications are described in a general way.	0 points
The key personnel have demonstrated qualifications for the work proposed. These qualifications are described in some detail.	6 points
The key personnel have significant qualifications for the delivery of the work proposed. These qualifications are well described.	10 points
The key personnel have extensive experience and very significant qualifications for the delivery of the work proposed. These qualifications are fully described.	15 points

## 4. Transition Plan - Maximum of 20 points

The assessment of how the knowledge, science, or technology developed through the Bidder's proposal will be transitioned and/or exploited is based on the evaluation elements and schema summarized below.

For this criterion the Bidder's Work Plan should include the following elements:

- a) Provide additional steps that are beyond the scope of the proposal (such as user validation trials, regulatory approvals, ongoing maintenance and licensing renewal,). Technology demonstrations and pilot projects should describe the knowledge, technology and/or product dissemination plan;
- b) Include an overview of how additional research, technology exploitation and/or commercialization are to be financed. This may include the intent to form strategic partnerships or alliances with other stakeholders the Bidder may provide support letters from stakeholders, who are not named project partners, indicating their interest in the work. Support letters from named project partners will not be considered;
- c) Describe the product, technology, device, method, process, systems, etc., that are expected to ultimately result from this project. And,
- d) Provide additional information on the dependencies of the background intellectual property and disposition and management on foreground intellectual property.

(1000 words maximum)

Evaluation Schema	Points
The transition plan does not demonstrate and/or provides significantly limited demonstration of consideration being given to research and/or technology exploitation. There is no information on how future work on the technology will be funded or exploited.	0 points
The transition plan provides limited demonstration of consideration has been given to exploiting the resulting research and/or technology. There is insufficient information provided regarding intellectual property management. The plan is unclear on how additional research, technology will be funded.	8 points
The transition plan demonstrates that some consideration has been given to exploiting the resulting research and/or technology. A plan appears to be in place for future financing to continue to develop and/or exploit the technology. Information has been provided regarding the intellectual property management. Some details may be missing, but overall, the plan is clear and complete.	14 points
The transition plan demonstrates that a clear and complete approach to fully exploiting the resulting research and/or technology has been considered. A plan for future financing to further develop the research and/or technology is clear and complete. The information provided regarding intellectual property management is sufficiently detailed.	20 points

## Annex D - Work Plan

Below is a template for the Work Plan, please fill in all columns.

Task Numb	Start Date (MO/YR)	End Date (MO/YR)	Deliverable	Lead	Risks	Probability (H/M/L)	Impact (H/M/L)	Mitigation

<sup>\*</sup>Add rows as needed

Work Plan- continued.

Special Procurement Requirements		Go/No-Go Decisions	Direct Cost Canada's Contribution	Direct cost Co-investment Contribution	In-Direct cost Canada's Contribution	In-Direct cost Co-investment Contribution	Explanation of significant costs	Total Estimated Budget/Cost

# Annex E – Detailed Budget Table

Below is a template for the Detailed Budget Table. If the proposal is not for a three (3) year project, the column(s) corresponding to the additional year(s) should be left blank. Additional columns (eg Year 4) cannot be added).

	Progran	n Funding Requ	uested		
Partner	Item	Year 1	Year 2	Year 3	TOTAL
Bidder	Labour				\$ -
	Equipment				\$ -
	Material & Supplies				\$ -
	Indirect Costs				\$ -
	Travel				\$ -
	Sub- Contracts				\$ -
	Other (specify)				\$ -
	TOTAL:	\$ -	\$ -	\$ -	\$ -
Partner 1 or FOR For Stream B	Labour				\$ -
Lead Government Department	Equipment				\$ -
(if Lead Department is not the Bidder)	Material & Supplies				\$ -
	Indirect Costs				\$ -
	Travel				\$ -
	Sub- Contracts				\$ -
	Other (specify)				\$ -
	TOTAL:	\$ -	\$ -	\$ -	\$ -
All other partners (List in space below)	Labour				\$ -

	Equipment				\$
	Material & Supplies				\$
	Indirect Costs				\$
	Travel				\$ -
	Sub- Contracts				\$ -
	Other (specify)				\$ -
	TOTAL:	\$ -	\$ -	\$ -	\$ -
Total Program Fundir	ng Requested:	\$ -	\$	\$	\$
	Co-Investment C	Contribution (Ir	- n-kind and Cash	1)	<del>-</del>
Partner	Budget Element	Year 1	Year 2	Year 3	TOTAL
Bidder	Labour				\$ -
	Equipment				\$ -
	Material & Supplies				\$
	Indirect Costs				\$
	Travel				\$ -
	Sub- Contracts				\$ -
	Other (specify)				\$ -
	TOTAL:	\$ -	\$ -	\$ -	\$ -
Partner 1 OR For Stream B	Labour				\$ -
Lead Government Department	Equipment				\$ -
(if Lead Federal Department is not the Bidder)	Material & Supplies				\$ -
	Indirect Costs				\$ -
	Travel				\$ -

	Sub- Contracts				\$ -
	Other (specify)				\$
	TOTAL:	\$	\$	\$	\$ -
All other partners (List in space below)	Labour				\$ -
	Equipment				\$ -
	Material & Supplies				\$ -
	Indirect Costs				\$ -
	Travel				\$ -
	Sub- Contracts				\$ -
	Other (specify)				\$ -
	TOTAL:	\$ -	\$ -	\$ -	\$ -
Total Co-Investment	Contribution:	\$ -	\$ -	\$ -	\$ -
	Estimated	Total Costs fo	r Proposal		
Total Program Fundi	Total Program Funding Requested			\$ -	\$ -
Total In-Kind Cor	\$ -	\$ -	\$ -	\$ -	
Total Cash Cont	Total Cash Contribution			\$ -	\$ -
Total Approved Funding f Programs (includ		\$ -	\$ -	\$ -	\$ -
Total Proposa		\$ -	\$ -	\$ -	\$ -

# **Annex F - Project Manager Experience**

Project Manager, identify three projects that show that the Project Manager or project management team has project management expertise that is commensurate with both the complexity and funding amount being requested by the proposal.

Project One:				
Project Title:				
Description	Start Date	End Date	Cost	Responsibilities
Project Two:	<u> </u>			1
Project Title:				
Description	Start Date	End Date	Cost	Responsibilities
Project Three:				
Project Title:				
Description	Start Date	End Date	Cost	Responsibilities
Other Comme	nts: (200 wo	ords maximu	ım)	

# **Annex G- Key Project Team Members Experience**

For each Key Project Team Member identified, identify the relevant experience and/or qualifications to undertake the scientific or technical elements required by the proposal.

Key Project Te	eam Member's Name	e:				
Experience:						
Required scientific or technical element	Past Experience	Start Date	End Date	Deliverables		
	<u> </u>					
And/or						
Qualifications		-				
Required scientific or technical element	Qualification	Year				
Other Comments: (200 words maximum)						

## Annex H – Partnership Signature Form

This template for the Partnership Signature form is to be filled out for the Public Safety and Security Stream B S&T Challenges. Refer to Annex C for instructions on the level of signatures.

A signature on this form constitutes a confirmation to the effect that:

"I have read this CFP and proposal in full and agree to the collaboration of myself and my organization as described in the project description and budget information."

Partnership Signature Form					
DRDC Reference ID:					
Proposal Title:					
Bidder Name:					
Partner	Signatory				
Organization Name and Sector (print)	Name (Last, First) (print)	Position Title (print)	Date (YYYY/MM/DD) (print)	Signature	
Full Name: Sector*:					
Full Name: Sector*:					

<sup>\*</sup> The sector classification (public, industry, academia, etc.) of an organization is to be identified. Public entities are to identify which level of government they represent - federal, provincial, territorial or municipal. Other than the signature, all entries should be printed.

# Annex I – Technology Readiness Levels (TRLs)

The technology readiness levels (TRLs) are indicated below:

THE TECHNO	logy readiness levels (TILE	of are maleated below.				
TRL 1	Basic Principles	Basic science principles are observed and reported.	High	1	Low	_
TRL 2	Concept Definition	Technology concepts and/or applications are formulated through analytical studies.				
TRL 3	Proof of Concept	Analytical and/or laboratory studies are initiated to demonstrate the proof of concept is viable.				
TRL 4	Laboratory Validation	Basic concept, component, process, and system integration and validation in a low-fidelity laboratory environment.	Risk Tole		Relative	
TRL 5	Simulated- Environment Validation	Refined concept, component, process, and system integration and validation in a simulated environment.	Risk Tolerance Level		tive Cost	
TRL 6	Simulated - Environment Demonstration	Near end-state system or sub-system prototypes are demonstrated and tested in a simulated environment.	=			
TRL 7	Operational Demonstration	System prototype is demonstrated and tested in an appropriate operational environment.				
TRL 8	System Development	End-state system is completed and qualified by test and demonstration in an operational environment.				
TRL 9	System Deployment	Actual system is proven and deployed in an operational environment.	Low		High	7

Buyer ID - Id de l'acheteur XXXXX CCC No./N° CCC - FMS No./N° VME

#### Annex J - Co-Investment Information

There are two types of co-investment contributions, as detailed below.

- 1) Cash Contributions: Partners are strongly encouraged to demonstrate their direct support for the project (defined in the proposal) with cash contributions. Cash contributions are project expenses paid for directly by a partner organization for goods or services acquired solely for activities related to the project. Two examples include:
  - a) partner organization funds that will be used to purchase new equipment or software that no partner had at the time of project initiation; and
  - b) Services of a resource that/who will work on the project that/who was not engaged by a partner prior to the initiation of the project.
- 2) In-Kind Contributions: In-kind contributions are direct costs to the project that are considered essential to project execution. They are most often in the form of cash equivalent goods or services that are pre-existing within a partner's inventory at the initiation of the project. For example, the salary of a full time employee, use of equipment, licences and/or laboratory space all qualify as in-kind contributions to the project. Contributions will only be taken into consideration if they are from participating partners.

Partners may solicit financial support from other federal programs as a contribution to the project. Such contributions must respect the limitations imposed – if any - by the partner organizations (for example, stacking provisions associated with some federal programs) and must be clearly articulated in the proposal.

If a proposal is selected, co-investment contribution information must be supported by detailed calculations, explaining all proposed inputs and valuations in the project implementation phase.

**Table J-1: In-Kind Contributions** 

In-Kind Category	Acceptable	Non Acceptable
Access to Databases	-Incremental costs of access	-Cost of developing a database and collecting data
Analytical and Other Services	-Internal rates or incremental cost of providing service	-Commercial rates
Equipment	-Donated (used) -fair-market value -company book value -price for internal transfers -Donated (new) -selling price to most favoured customer (if stock item) -cost of manufacture (if one of a kind) -Loaned -rental equivalent based on depreciation -rental equivalent to highest-volume rate	-List price or discounted list price -Rentals exceeding the acceptable values had the rental equipment been donated or sold -Development costs
Faculty Remuneration	-Payment to the university/college for release time from teaching duties	-Payments as consulting fees or honoraria (additional to normal salary)
Materials	-Unit cost of production for commercial products -Selling price to most favoured customer -Price for internal transfers -Cost of production of prototypes and samples	-Development costs
Patents and Licences	-Licences acquired from third parties for use by the project	<ul> <li>Fees related to applying for and maintaining patents</li> <li>Licensing fees</li> </ul>
Salaries	-Actual salary cost (including benefits)	-External charge-out or consultant rates -Salary and costs of administrative support staff -Salary and costs of management activities not directly related to scientific and technical contributions to the project
Software	-Cost of training and support for software required -Most-favoured-customer cost for one licence per software package -Cost of equivalent commercial product	-Development costs

File No. - N° du dossier

xxxxx.XXXXXX-XXXXXX

CCC No./N° CCC - FMS No./N° VME

	(where donated software is not commercially available)	
Travel	-Travel costs to meet with project stakeholders	-Conference travel
Use of Facilities	-Internal rates for logistical support, food, and lodging for project personnel working on stakeholder premises or on field work -Internal rates for use of specialized equipment by project personnel or use of process or production lines -Internal rates for value of lost production resulting from downtime	-Space for stakeholder activities outside the scope of the specific proposal -Equivalent commercial rates