



**RETURN RESPONSES TO:
RETOURNER LES RÉPONSES À:**

PWGSC Bids Receiving Unit
Place Bonaventure, 7th Floor
South-East Portal, suite 7300
800 De la Gauchetière St. W.
Montreal, Quebec, Canada
H5A 1L6

Réception des soumissions de TPSGC
Place Bonaventure, 7^e étage
Portail Sud-Est, suite 7300
800 rue de la Gauchetière Ouest
Montréal (Québec), Canada
H5A 1L6

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

**Proposal to : Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux : Travaux publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du Chef du Canada, aux conditions énoncés ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments – Commentaires

**Vendor / Firm Name and Address
Raison sociale et adresse du
fournisseur / de l'entrepreneur**

Issuing Office - Bureau de distribution

Space Programs Directorate (Mtd Division)
6767 route de l'Aéroport
Longueuil, Quebec, Canada
J3Y 8Y9



Titre – Sujet Environmental Scan Study for Space Health and Life Sciences	
Solicitation No. - N° de l'invitation 9F008-16-0477/A	Amendment No. - N° modif. N/A
Client Reference No. - N° de référence du client 9F008-16-0477	Date December 7, 2016
GETS Ref. No. - N° de réf. de SEAG	
File No. - N° de dossier 9F008-16-0477	CCC No./N° CCC - FMS No/N° VME N/A
Solicitation Closes - L'invitation prend fin : at - à 2:00 pm On - le Thursday, January 12, 2017	Time Zone Fuseau horaire Eastern Standard Time (EST)
F.O.B - F.A.B.	
Plant-Usine : <input type="checkbox"/>	Destination : <input checked="" type="checkbox"/> Other-Autre : <input type="checkbox"/>
Address Enquiries to: - Adresser toutes questions à: Bruno Bergeron	Buyer Id - Id de l'acheteur MTD100
Telephone No. - N° de téléphone 450-926-4562	E-mail address - Adresse Courriel bruno.bergeron@canada.ca
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Canadian Space Agency 6767 route de l'Aéroport Longueuil, Quebec, Canada J3Y 8Y9	

Instructions : See Herein
Instructions : Voir aux présentes

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

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PART 1 - GENERAL INFORMATION

1.1 INTRODUCTION

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

List of Annexes:

- Annex "A" - Statement of Work;
- Annex "B" - Basis of Payment;
- Annex "C" – Bidder's / Contractor's Disclosure of Intellectual Property;
- Attachment 1 to Part 3: Additional CSA Technical bid preparation instructions;
- Attachment 1 to Part 4: Mandatory and Point Rated Evaluation Criteria.

1.2 SUMMARY

Project Title:

Environmental Scan Study for Space Health and Life Sciences

Description:

- a) Public Works and Government Services Canada (PWGSC), on behalf of the Canadian Space Agency (CSA), located in Longueuil, Quebec (the "Client"), is seeking bids from space health experts to prepare an environmental scan study of current and anticipated environmental factors that may impact the activities of CSA's Health and Life Sciences Directorate (HLS).
- b) This study is to be completed on or before **July 31st, 2017**.
- c) This bid solicitation is intended to result in the award of one (1) single contract for an all-inclusive budget not to exceed **\$172,000.00 CDN** (including all applicable taxes);
- d) This procurement is **solely limited to Canadian Services**.

Contract Period:

The initial period of the Contract is from Contract award until July 31st, 2017.

Intellectual Property:

The Intellectual Property vests with Canada. The Canadian Space Agency has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reason, as set out in the

Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts:

Where the main purpose of the Crown Procurement Contract, or the deliverables contracted for, is:

- 4.1 – *To generate knowledge and information for public dissemination.*

Security Requirements:

There is no security requirements associated with this requirement.

Integrity Provisions:

As per the Integrity Provisions under section 01 of Standard Instructions 2003 (2016-04-04) bidders must provide a list of all owners and/or Directors and other associated information as required. Refer to section 4.21 of the *Supply Manual* for additional information on the Integrity Provisions and to Part 5 – Certifications.

Former Public Servants:

For services requirements, Bidders must provide the required information as detailed in article 2.3 of Part 2 of the *bid solicitation*, in order to comply with Treasury Board policies and directives on contracts awarded to former public servants.

Trade Agreements:

This requirement is not subject to the Trade Agreements as per the following dispositions:

- Agreement on Internal Trade (AIT):
[Chapter 5, Annex 502.1A](#)
- World Trade Organization Agreement on Government Procurement (WTO-AGP):
[Appendix I, Annex I](#)
- North American Free Trade Agreement (NAFTA)
[Chapter 10, Annex 1001.1a-1](#)
- Canada-Chile Free Trade Agreement
[Annex K bis-01, 1-1](#)
- Canada-Peru Free Trade Agreement
[Annex 1401,1-1](#)
- Canada-Colombia Free Trade Agreement
[Annex 1401-1](#)
- Canada-Panama Free Trade Agreement
[Chapter 16, Annex I](#)

Canadian Content

This requirement is solely limited to Canadian services.

1.3 DEBRIEFINGS

Bidders may request, in writing, a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within ten (10) working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.4 COMMUNICATIONS

As a courtesy and in order to coordinate any public announcements pertaining to any resulting Contract, the Government of Canada requests that the successful bidder notify the Contracting Authority, five (5) working 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.

PART 2 - BIDDER 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) (<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 bid agree to be bound by the instructions, clauses and conditions of the bid 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 bid solicitation.

2.1.1 SACC Manual Clauses

[A7035T](#) (2007-05-25) List of Proposed Subcontractors

2.2 SUBMISSION OF BIDS

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit at the address below by the date and time indicated on page 1 of the bid solicitation.

Bids are to be sent to the following address:

Bids Receiving Unit
Public Works and Government Services Canada
Quebec Region

Place Bonaventure, 7th Floor, Suite 7300 South-East Portal
800 De la Gauchetière Street West
Montreal, Quebec, Canada
H5A 1L6

Due to the nature of the bid solicitation, bids transmitted by facsimile or by e-mail to PWGSC will not be accepted.

2.3 FORMER PUBLIC SERVANT

Contracts awarded to former public servants (FPS) 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 [Financial Administration Act](#), 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.

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;
- 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 former public servant 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](#).

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;
- c) 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 \$5,000.00 (CDN) including Applicable Taxes.

2.4 ENQUIRIES - BID SOLICITATION

All enquiries must be submitted only in writing to the Contracting Authority no later than ten (10) working days before the bid 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 Bidder 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.

2.5 APPLICABLE LAWS

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the province of **Quebec**.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, 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.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 BID PREPARATION INSTRUCTIONS

Canada requests that bidders provide their bid in separately bound sections as follows:

- Section I: Technical Bid:
 One (1) hard copy and one (1) soft copy on CD, DVD or USB Key.
- Section II: Financial Bid:
 One (1) hard copy and one (1) soft copy on CD, DVD or USB Key.
- Section III: Certifications:
 One (1) hard copy and one (1) soft copy on CD, DVD or USB Key.

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy. The only acceptable file formats for the soft copies are MS Word, MS Excel or Adobe PDF.

*****Prices must appear in the financial bid only***.
No prices must be indicated in any other section of the bid.**

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process ([Policy on Green Procurement](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html)) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, bidders must demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders must demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work. The technical bid must address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

In their technical bid, bidders must describe their capability and experience, the project management team and provide client contact(s).

3.1.1 CSA's technical Additional Bid Preparation Instructions:

In addition to the above generic bid preparation instructions, bidders must follow the CSA instructions set forth under the Attachment #1 to this Part 3 of this bid solicitation document (page 37).

3.1.2 Preliminary Disclosure of Contractor's Background Intellectual Property brought into the study project by the Bidder:

If the Bidder intends to use any of its own Background Intellectual Property to develop the Foreground Information, the Bidder must complete the Table C1 – *"Disclosure of Background Intellectual Property (BIP) brought into the study project by the Contractor"* included in the Annex "C" of this bid solicitation document and include it into the Section I – (*Technical*) of its Bid. Such report will be reviewed by both the Contracting and Technical Authorities, but not evaluated.

If a contract is awarded following this bid solicitation process, the selected contractor will be required to provide Canada with a comprehensive update of such preliminary BIP disclosure report that was submitted as part of the contractor's Bid as part of the Contract closure process

Section II: Financial Bid

3.1.3 Bidders must submit their financial bid in accordance with the "Basis of Payment" (Annex "B") in their Financial Bid (table B1).

Firm Fixed Prices are to be presented in Canadian funds, Canadian customs duties and excise taxes included (if applicable) and applicable sales taxes extra and shown separately (if applicable). Prices are to be FOB destination (Canadian Space Agency, Longueuil, Quebec).

Blank prices: When applicable, bidders are requested to insert "0.00\$" for any item for which it does not intend to charge or for items that are already included in other prices in the basis of payment. If the bidder leaves any price blank, Canada will treat the price as "0.00\$".

All Costs to be included: The financial bid must include all costs for the requirement described in the bid solicitation for the entire Contract Period. The identification and provision of any necessary equipment, software, peripherals or components required to meet the requirements of the bid solicitation and the associated costs of these is the sole responsibility of the Bidder.

If applicable, per diems are to be based on seven and a half hours (7.5) of Work per day.

Section III: Certifications

3.1.4 Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 EVALUATION PROCEDURES

- (a) Bids 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 bids. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory and Point Rated Technical Criteria

Mandatory and Point Rated (Technical) are included in the Attachment 1 to this Part 4 of this Bid Solicitation document.

4.1.1.2 Bidder Experience

Except where expressly provided otherwise, the experience described in the bid must be the experience of one or more of the following:

1. The Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract); or
2. The Bidder's affiliates (i.e. parent, subsidiary or sister corporations), provided the Bidder identifies and demonstrates the transfer of know-how, the use of toolsets and the use of key personnel from the affiliate for the applicable criterion; or
3. The Bidder's subcontractors provided the Bidder includes a copy of the teaming agreement and identifies the roles and responsibilities of all parties under the agreement and how their work will be integrated.

The experience of the Bidder's suppliers will not be considered.

4.1.2 Financial Evaluation

Prices are to be presented in Canadian funds, Canadian customs duties and excise taxes included (if applicable) and applicable sales taxes extra and shown separately (if applicable). Prices are FOB destination (Canadian Space Agency, Longueuil, Quebec).

The maximum funding available for the Contract resulting from the bid solicitation is **\$172,000.00** CDN (including all applicable taxes). **Bids valued in excess of this amount will be considered non-responsive.** This disclosure does not commit Canada to pay the maximum funding available.

4.2 BASIS OF SELECTION

4.2.1 Highest Combined Rating of Technical, Merit and Price

1. To be declared responsive, a bid must:
 - a) comply with all the requirements of the bid solicitation; and
 - b) meet all the mandatory evaluation criteria;
 - c) obtain the required minimum of 45 points for the overall technical evaluation criteria out of a maximum of 100 points; and
 - d) Not exceed the maximum budget allowed.
2. Bids not meeting a), b), c) or d) will be declared non-responsive.
3. The selection will be based on the highest responsive combined rating of technical and managerial merit and price. The ratio will be 60% for the technical merit and 40% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 40%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical merit score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical and managerial merit and price will be recommended for award of a contract **provided that the total evaluated price does not exceed the budget available for this requirement.**

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 60/40 ratio of technical and programmatic merit and price, respectively. The total available points equal 135 and the lowest evaluated price is \$45,000 (45).

**Basis of Selection:
 Highest combined rating of Technical and Managerial Merit (60%) and Price (40%)**

		Bidder 1	Bidder 2	Bidder 3
Overall technical score		115/135	89/135	92/135
Bid Evaluated Price		\$55,000.00	\$50,000.00	\$45,000.00
Calculations	Technical Merit Score	115/135 x 60 = 51.11	89/135 x 60 = 39.56	92/135 x 60 = 40.89
	Pricing Score	45/55 x 40 = 32.73	45/50 x 40 = 36.00	45/45 x 40 = 40.00
Combined Rating		83.84	75.56	80.89
Overall Rating		1 st	3 rd	2 nd

PART 5 - CERTIFICATIONS

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid 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 may render the bid non-responsive or constitute a default under the Contract.

5.1 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD

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

5.1.1 Integrity Provisions - Associated Information

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions [2003](#) (2016-04-04). The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

5.1.2 Additional Certifications Precedent to Contract Award

5.1.2.1 Canadian Content Certification

() The service offered is a Canadian Service as defined in paragraph 2 of clause [A3050T](#).
Failure to provide this certification completed with the bid will render the bid non-responsive.

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](#).

5.1.2.2 Canadian Content Definition

SACC Manual Clause [A3050T](#) (2014-11-27) – Canadian Content Definition.

5.1.2.3 Status and Availability of Resources

SACC Manual Clause [A3005T](#) (2010-08-16) – Status and Availability of Resources.

5.1.2.4 Education and Experience

SACC Manual Clause [A3010T](#) (2010-08-16) – Education and Experience

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 SECURITY REQUIREMENTS

There is no security requirement applicable to this solicitation.

6.2 FINANCIAL REQUIREMENTS

There is no financial requirement applicable to this solicitation.

6.3 OTHER REQUIREMENTS

There is no other requirement applicable to this solicitation.

PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

7.1 STATEMENT OF WORK

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A" and the Contractor's technical bid entitled _____, dated _____.

7.2 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)(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

[2040](#) (2016-04-04) General Conditions – Research and Development apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

The following Supplemental General Conditions apply to and form part of the Contract.

[K3410C](#) (2015-02-25) – Canada to Own Intellectual Property Rights in Foreground Information.

7.3 SECURITY REQUIREMENTS

There is no security requirement applicable to this Contract.

7.4 CONTRACT PERIOD

The "Contract Period" is the entire period of time during which the Contractor is obliged to perform the Work, which includes:

- i. The "Initial Contract Period" which begins on the date the Contract is awarded and ends on July 31st, 2017.

7.5 AUTHORITIES

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Bruno Bergeron
Title: A/ Supply Manager
Public Works and Government Services Canada
Space Programs Directorate

Address: 6767, Route de l'Aéroport, suite 4A-354
St-Hubert, Quebec, Canada
J3Y 8Y9

Telephone: 450-926-4562
E-mail address: bruno.bergeron@canada.ca

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.

7.5.2 Technical Authority

The Technical Authority for the Contract is:

Name:
Title:

Organization: Canadian Space Agency
Address: 6767, Route de l'Aéroport
St-Hubert, Quebec, Canada
J3Y 8Y9

Telephone:
E-mail address:

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.

7.5.3 Contractor's Representative

Name:
Title:

Organization:
Address:

Telephone:
E-mail address:

7.6 PROACTIVE DISCLOSURE OF CONTRACTS WITH FORMER PUBLIC SERVANTS

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act \(PSSA\)](#) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

7.7 PAYMENT

7.7.1 Basis of Payment

Payments will be made to the Contractor in Canadian dollars (\$CDN).

7.7.1.1 Travel and Living Expenses

When and if applicable, the Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal, private vehicle and incidental expense allowances specified in Appendices B, C and D of the [Treasury Board Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees".

All travel must have been explicitly pre-authorized by the Technical Authority. All payments are subject to government audit.

Total Estimated Cost – Limitation of Expenditure: \$_____CDN (applicable taxes included).

7.7.2 Milestone Payments

Canada will make milestone payments in accordance with the Schedules of Milestones detailed in the Annex "B" and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment using [PWGSC-TPSGC 1111](#), 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.

7.7.3 Invoicing Instructions

1. The Contractor must submit a claim for payment using form [PWGSC-TPSGC 1111](#), 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. the description and value of the milestone claimed as detailed in the Contract (when applicable).
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 not Applicable Taxes payable as it was claimed and payable under the previous claim for progress payments.
 3. The Contractor must prepare and certify **one original and two (2) copies** of the claim on form [PWGSC-TPSGC 1111](#), and forward it to the Technical Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place. The Technical Authority will then forward the original and two (2) copies of the claim to the Contracting Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.
 4. The Contractor must not submit claims until all work identified in the claim is completed.

7.8 CERTIFICATIONS

7.8.1 Compliance

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing associated information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the associated information, 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.

7.8.2 SACC Manual Clauses

[A9117C](#) (2007-11-30) T1204 – Direct Request by Customer Department

[A3025C](#) (2013-03-21) Proactive Disclosure of Contracts with Former Public Servants

7.9 APPLICABLE LAWS

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in the _____ (insert the name of the province or territory as specified by the Bidder in its Bid, if applicable) Canada.

7.10 PRIORITY OF DOCUMENTS

If there is a discrepancy between the wordings 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.

- a) the Articles of Agreement;
- b) the General Conditions 2040 (2016-04-04), Research and Development;
- c) Annex A, Statement of Work;
- d) Annex B, Basis of Payment;
- e) Annex C, Contractor's Disclosure of Background Intellectual Property (*if applicable*) – and -
- f) The Contractor's bid entitled "___" dated _____.

7.11 DIRECTIVE ON COMMUNICATIONS WITH THE MEDIA

1. DEFINITIONS

"Communication Activity(ies)" includes: public information and recognition, the planning, development, production and delivery or publication, and any other type or form of dissemination of marketing, promotional or information activities, initiatives, reports, summaries or other products or materials, whether in print or electronic format that pertain to the present agreement, all communications, public relations events, press releases, social media releases, or any other communication directed to the general public in whatever form or media it may be in, including but without limiting the generality of the preceding done through any company web site.

2. COMMUNICATION ACTIVITIES FORMAT

The Contractor must early on coordinate with the Canadian Space Agency (CSA) all Communication Activities that pertain to the present contract.

Subject to review and approval by the CSA, the Contractor may mention and/or indicate visually, without any additional costs to the CSA, the CSA's participation in the contract through at least one of the following methods at the complete discretion of the CSA:

- a) By clearly and prominently labelling publications, advertising and promotional products and any form of material and products sponsored or funded by the CSA, as follows, in the appropriate official language:

"This program/project/activity is undertaken with the financial support of the Canadian Space Agency."

"Ce programme/projet/activité est réalisé(e) avec l'appui financier de l'Agence spatiale canadienne."

- b) By affixing CSA's corporate logo on print or electronic publications, advertising and promotional products and on any other form of material, products or displays sponsored or funded by the Canadian Space Agency.

Any and all mention or reference to the Canadian Space Agency in addition to those specified above in (a) and (b) must be specifically accepted by the CSA prior to publication.

The Contractor must obtain and use a high resolution printed or electronic copy of the CSA's corporate identity logo and seek advice on its application, by contacting the project manager as mentioned in section 6.2 of this contract.

3. COMMUNICATION ACTIVITY COORDINATION PROCESS

The contractor must coordinate with the CSA's Directorate of Communications and Public Affairs all Communication Activities pertaining to the present contract. To this end, the contractor must:

- a) As soon as the Contractor intends to organize a Communication Activity, send a Notice to the CSA's Directorate of Communications and Public Affairs. The Communications Notice must include a complete description of the proposed Communication Activity. The Notice must be in writing in accordance with the clause Notice included in the general conditions applicable to the contract. The Communications Notice must include a copy or example of the proposed Communication Activity.
- b) The contractor must provide to the CSA any and all additional document in any appropriate format, example or information that the CSA deems necessary, at its entire discretion to correctly and efficiently coordinate the proposed Communication Activity. The Contractor agrees to only proceed with the proposed Communication Activity after receiving a written confirmation of coordination of the Communication Activity from the CSA's Directorate of Communications and Public Affairs.
- c) The Contractor must receive beforehand the authorization, approval and written confirmation from the CSA's Directorate of Communications and Public Affairs before organizing, proceeding or hosting a communication activity.

7.12 INSURANCE

G1005C (2008-05-12) Insurance – No specific requirement

7.13 DISCLOSURE OF BACKGROUND INTELLECTUAL PROPERTY

If applicable, on completion of the Work, the Contractor must submit to the Technical Authority and to the Contracting Authority, a copy of the Background Intellectual Property Disclosure as per the format prescribed in the Annex "C". Such disclosure will consist in a comprehensive update of the preliminary Background Intellectual Property (BIP) disclosure report that was submitted as part of the Contractor's bid (Annex "C", Table "C1").

Such Intellectual Property Disclosure report is a Contract deliverable that is subject to Canada's review and acceptance.

ANNEX "A" - STATEMENT OF WORK

Statement of Work (SOW) for the **Environmental Scan Study for Space Health and Life Sciences**.

1. Background

As defined in the Canadian Space Agency (CSA) Act, S.C. 1990, c.13, the CSA has the mandate "to promote the peaceful use and development of space, to advance the knowledge of space through science and to ensure that space science and technology provide social and economic benefits for Canadians".

Within the ALSSM directorate, the HLS division aims to identify, understand, mitigate or eliminate health risks associated with human spaceflight, and to understand and address the needs of humans during those missions. This program encompasses health and life science activities to better understand the risks of human spaceflight or to develop mitigation measures against these risks. The most recent list of risks was released in 2014 and is summarized in Table 1.

Table 1 Human Health, Behavioral and Performance Risks

Musculoskeletal	Mission risks resulting from reduced muscle strength and aerobic capacity, and increased bone fragility
Sensorimotor	Mission risks resulting from sensory changes/dysfunctions reducing performance.
Ocular Syndrome	Mission risk of microgravity-induced visual impairment and/or elevated intracranial pressure.
Nutrition	Mission risks due to inability to provide appropriate quantity, quality and variety of food to meet nutritional requirements and maintain morale
Behavioral Health and Performance	Mission behavioral health and performance risks associated with stress, issues with team dynamics, risks associated with integration into post-space flight career phase.
Radiation	Mission risks due to health and performance impairment associated with radiation damage. Risk of carcinogenesis and degenerative tissue disease due to radiation exposure.
Hypo-gravity	Mission risks associated with physiological adaptation during transit (i.e. long duration exposure to microgravity) and extra-vehicular activities (EVAs) on the Moon, asteroids, or Mars (vestibular and performance dysfunctions).
Environmental Stressors	Mission risks of exposure to a toxic environment in the spacecraft, during EVAs or while on extraterrestrial bodies without adequate monitoring, warning systems or understanding of potential toxicity (planetary dust, chemicals, infectious agents, microbial contamination).

Current objectives of the HLS division are:

- Support evidence-based health risk mitigation;
- Focus on risks with terrestrial counterparts/parallels;
- Increase capabilities for *in situ* data acquisition in space, in support of life sciences research;
- Increased focus on countermeasure development, and specifically on evidence-based risk management development;
- Continue research on the entire continuum between understanding risks and developing effective risk management measures, i.e. fundamental to applied research.

Space experiments supporting these objectives are currently operating on the International Space Station (ISS) using human subjects for physiological and psycho-social research. The CSA is currently developing two new on-board instruments (Life Science Research Systems, or LSRS) to perform *in situ* data collection, and is also perfecting a device with flexible pathways for the processing of samples such as blood. The aim of the two LSRSs is: 1) to enable real-time physiological analysis using a bio-monitoring system; and 2) to perform on-orbit sample analysis using a bio-analysis system. The purpose of these systems is to enhance scientific analysis capability on-board the ISS, to enable real-time data collection and analysis and to reduce the requirements for sample return. The latter objective will be particularly important in the context of human space flight beyond Low Earth Orbit, where sample return to Earth laboratories for analysis will not be an option. Functionalities of the LSRS were defined in relation to research objectives but may evolve to support health care delivery.

2. Objectives of the study

2.1 Environmental Scan

Through this RFP, the HLS division will assess current and anticipated environmental factors that may impact the HLS division goals mentioned above. The environmental scan will focus on three main issues:

Issue 1: Instrument Development

With regards to space instrument development, the CSA HLS program currently focuses on physiological monitoring and *in situ* measurement of biomolecules. Other technologies (e.g. imaging systems) may also be valuable for space health and life sciences research. The study will identify, describe, and when appropriate, quantify external factors CSA should consider when planning for future instrument development supporting health risk research during spaceflight. Examples of external factors (non-exhaustive): current instrumentation used in relevant research fields for non-space research; trends in instrument development; industry trends for miniaturization and/or automation of research instruments; Canadian companies involved in development of relevant instrumentation; Canadian funding opportunities for development of relevant instrumentation or technology; Canadian academic strengths in the development of relevant instrumentation or technology.

Issue 2: Individualized Health Care

Individualized health care is a new trend in life science and medicine. For the purpose of this study, the term will be differentiated from the conventional definition of 'Personalized medicine' and will be defined as: development of space risk mitigation strategies tailored to each specific astronaut. Mitigation strategies can be based on many factors (e.g. an astronaut's pre-flight fitness). The study will identify and describe external factors CSA should take into account in planning research that supports individualized health care in space. Examples of external factors (non-exhaustive): current trends in research linked to the development of individualized medicine; Canadian funding opportunities for the development of individualized medicine for Canadians; the "omics" (e.g. genomics) revolution in relation to the development of individualized medicine; support required for individualized medicine.

Issue 3: Range of Fields of Study

The current CSA HLS focus is on research in the following fields: musculoskeletal, sensorimotor, ocular, and behavioral adaptations to spaceflight, including other biological adaptations to weightlessness or reduced gravity, space radiation risks to health, and space-relevant environmental health stressors. The study will identify and describe external factors that CSA should take into account in planning its research program in this context, with respect to either expanding or contracting the range of research fields that are supported. Examples of external factors (non-exhaustive): range of space health research fields that are supported by other space agencies; recent funding opportunities released by other space agencies; Canadian funding opportunities in relevant research fields.

2.2. Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis

Using the information obtained to meet the three objectives stated above, the contractor will then do an analysis of the strengths, weaknesses, opportunities and threats associated with the following three planning pathways:

1. HLS focuses only on development of physiological monitoring and bio-analytical devices for *in situ* sample analysis;
2. HLS frames its research program on the development of a knowledge base to inform individualized medicine in space;
3. HLS continues its current practice of focusing on research in the following fields: musculoskeletal, sensorimotor, ocular, and behavioral adaptations to spaceflight, including other biological adaptations to weightlessness or reduced gravity, space radiation risks to health, and space-relevant environmental health stressors.

The strengths and weaknesses analysis will concentrate on the following internal factors, (the bidder can propose additional internal factors):

- CSA HLS budget (2017-2024);
- CSA HLS human resource projections (2017-2024);
- CSA International Space Station allocation of resources, including crew-time and transport.

The opportunities and threats analysis will use the results of the study of external environmental factors described above in issues 1 to 3.

2.3 Recommendations

Based on the SWOT analysis, the contractor will provide recommendations specifically addressing each of the three identified planning pathways described above. These recommendations will be justified by the SWOT analysis, and by pulling specific, essential data from the environmental scan.

3. Scope of Work

The Canadian Space Agency is an entity of the Government of Canada, so the focus is mainly on factors that relate to, or that affect the Canadian academic and industrial communities. Consequently, the scope of the contracted work will be mainly but not completely confined to the Canadian context. Also, the study should focus on current or recent (mainly the last five years) data. The bidder can propose a scope of work that is expanded or contracted from the details provided below, with justification. The scope of work must fit within the budget of this study.

Details on the scope of work:

3.1 Issue 1 (Instrument Development):

- Identify, tabulate, and describe current instrumentation used in relevant research fields for non-space research; the bidder should propose a strategy for using searches of the scientific literature to derive this information;
- Identify, tabulate, and describe current instrumentation used in relevant research fields for space research on the International Space Station; the bidder can use ISS program documents to obtain this data (e.g. https://www.nasa.gov/mission_pages/station/research/experiments_category/);
- Identify, tabulate, and describe current trends in relevant life science research instrument development, and trends in instrument miniaturization and/or automation; the bidder should propose a strategy for obtaining this data from the scientific and technical literature;
- Identify, tabulate, and describe Canadian funding opportunities for development of relevant instrumentation or technology; the bidder should examine CIHR, NSERC, SSHRC, and Canadian NGO sources for this information;
- Identify, tabulate, and briefly describe Canadian companies involved in relevant instrumentation or technology development;
- Identify, tabulate, and briefly describe Canadian academic strengths in the development of relevant instrumentation or technology. The bidder should propose a strategy for obtaining this information from the scientific and technical literature. It is not necessary to identify all relevant university faculty members in Canada; however, major strengths (e.g. institutes, research centers, international leaders) should be identified and described.

3.2 Issue 2 (Individualized Health Care):

- Identify, tabulate, and describe current trends in research linked to the development of individualized medicine; the bidder should propose a strategy for obtaining this information from the scientific literature. Emphasis should be placed on medicine that is particularly relevant to space flight. Some fields, such as individualized cancer therapy, should receive relatively little attention, whereas fields such as individualized exercise prescriptions for rehabilitation following prolonged inactivity are more relevant, and should receive greater emphasis;
- Identify, tabulate, and describe Canadian funding opportunities for development of individualized medicine; the bidder should examine CIHR, NSERC, SSHRC, and Canadian NGO sources for this information;
- Identify, tabulate and describe fields of study within the 'omics' umbrella that are relevant to the development of individualized medicine for spaceflight crews. The bidder should propose a strategy for the use of the scientific literature (e.g. identification and use of specific scientific reviews) to derive this information. The bidder should also propose a method of deriving a quantitative understanding of the number of Canadian academic researchers who are active in each of these fields of study;
- Identify, tabulate, and describe the technological or logistical (e.g. healthcare personnel) support that is expected to be required for individualized medicine. It is anticipated that this information can be obtained via specific scientific and technical review articles.

3.3 Issue 3 (Range of Fields of Study):

- Identify, tabulate, and describe the range of space health research fields that are supported by other space agencies: the bidder should propose a strategy that extracts this information from the scientific literature;
- Identify, tabulate, and describe recent funding opportunities released by other space agencies; this information can be obtained from public internet sources;
- Identify, tabulate, and describe Canadian funding opportunities in relevant research fields; the bidder should examine CIHR, NSERC, SSHRC, and Canadian NGO sources for this information.

3.4 SWOT Analysis:

- Opportunities and threats will be prioritized, based on prioritization criteria developed by the bidder as part of the contracted work;
- Summaries of opportunities and threats will be presented in tabular and graphical forms;
- The SWOT analysis will present and explain key strengths, weaknesses, opportunities and threats;
- The SWOT analysis should be reviewed by a small number of key experts.

3.5 Recommendations:

The recommendations should be provided in the form of a concise report with an executive summary. It is expected that the length of the report will be 20 to 30 pages, with annexes including appropriate data summaries and references to key data sources.

Work to be performed:

The contractor is requested to provide the personnel, facilities, and services to perform the following work:

Task 1:

Preparation of a kick-off meeting at CSA Headquarters (in Longueuil, Quebec) to clarify work objectives. Deliverable includes a Powerpoint presentation summarizing the work objectives, the proposed work plan to achieve these objectives and points to be clarified. Within 2 weeks after contract initiation, a kick-off meeting will be held at CSA with the Project Authority and CSA experts to validate and obtain approval of the work plan. Minutes will be provided by the Contractor.

Task 2:

Conduct the environmental scan and SWOT analysis following the instructions listed in sections 2 and 3 of this SOW. Support monthly teleconferences with CSA to update on the progress and confirm alignment with SOW objectives.

Task 3:

Hold a mid-term teleconference with Project Authority and CSA experts using the Government WebEx system to present preliminary results of environmental scan and to confirm the next steps. A Powerpoint presentation and a draft annotated table of contents for the SWOT Analysis Report and the Recommendations Report will be submitted 1 week before the teleconference. At this point the files with the data used for the environmental scan will be submitted for review. The CSA may then request changes in the structure of the data files. These files are expected to be in MS Excel format, but bidders are encouraged to propose creative strategies for storing and linking the data. Thus, other commercially available software formats can be proposed. The Contractor will provide minutes of the teleconference.

Task 4: Write and submit a draft of the SWOT Analysis Report and a draft of the Recommendations Report in MS Word format, as described in the objectives and scope of this SOW. The draft reports will be sent to CSA no later than one month before end of Contract and CSA will provide comments in order to finalize the report.

Task 5: Prepare the last meeting and submit a Powerpoint presentation including highlights of the final report. The meeting with Project Authority and CSA experts will be held at CSA to present highlights of the final report and obtain last comments on the final report. Updated report and Powerpoint presentation will be provided by the Contractor if necessary.

In addition to these tasks, the Contractor will support monthly or ad-hoc teleconferences with the Project Authority, and will be responsible for managing travel expenses associated with the meeting at CSA in accordance with Treasury Board policy.

Meetings:

1. Kick off meeting for validation and approval of work plan.
2. Regular teleconferences held approximately monthly or as required.
3. Mid-term teleconference.
4. Final to present highlights and discuss comments to the final report.

Deliverables:

All deliverables will be prepared in Microsoft Office format, in English, and provided to the CSA in electronic copies. The data used to generate the above-mentioned deliverables will also be provided to the CSA in an Excel format (unless an alternative format is approved by the CSA), together with a bibliography. Documents will be considered "as delivered" once they are formally approved by the CSA Project Authority. These deliverables are listed hereafter:

Deliverable #1:

Work Plan and Schedule of overall project. The plan will identify the main milestones of the project including schedule, documents for CSA approval, critical events, and difficulties that might be encountered with potential corrective measures. A data plan will also be submitted that describes how the source data of the environmental scan will be electronically stored for use during the contract and for delivery to CSA. This deliverable relates to task 1 and should be submitted no later than 1 week before the kick-off meeting.

Deliverable #2:

Minutes of the kick-off meeting, to be provided no later than 1 week after the meeting.

Deliverable #3:

Documents for the mid-term teleconference. One week before the mid-term teleconference, the Contractor will submit:

- A Powerpoint presentation summarizing the progress;
- Draft tables of content for the SWOT Analysis Report and the Recommendations Report;
- Draft Data Files with the source data used for the environmental scan. The CSA may then request minor changes to the structure of these files.

Deliverable #4: Minutes of the mid-term teleconference, to be provided no later than 1 week after the teleconference.

Deliverable #5:

A draft SWOT report (in MS Word) will describe in a stand-alone document the results of the SWOT analysis. This report shall explain how the environmental scan data is used in the SWOT analysis, the prioritization criteria for Opportunities and Threats, and the results of the SWOT analysis. Annexes to this report will include summary tables and graphs derived from the environmental scan. Submission of this draft report must be completed no later than 4 weeks before end of Contract.

Deliverable #6:

A draft Recommendations Report that uses the SWOT analysis to formulate recommendations regarding the three planning pathways described in section 2.D.

Deliverable #7:

A Powerpoint presentation will be prepared to presents the highlights of final report, for use in presentation to management and submitted no later than one week before final meeting.

Deliverable #8:

Final versions of the data files, the SWOT report, the Recommendations report and the final PowerPoint presentation will be prepared based on feedback received from CSA on the draft final reports and presentation and submitted no later than one week after the final meeting.

Deliverable #9: Minutes from all teleconferences and meetings between CSA and the Contractor.

Other Requirements:

Quality Control and Professional Standards:

The Contractor will ensure that all tasks are undertaken with due regard to quality control and that material presented to CSA is properly proofed for content and style:

- Content refers to the technical quality of the material produced and presented;
- Style refers to the presentation of the material: clear labelling / formatting of tabulated data, grammar, spelling, logic flow, and readability.

The Contractor will ensure that all final documents include a section outlining the limitations of the data and methodology, and offer instructions for the interpretation of results.

Contractor's Project Team:

For each task/deliverable approved through the Work Plan and Schedule, the Contractor will identify the abilities of the resources composing the team, along with the responsibilities and number of hours for each team member.

CSA Support to the Contractor and Available Data:

The following links may be useful to provide context regarding health risks of human space flight from an international perspective.

- [Global Exploration Roadmap \(ISECG\)](#)
- [NASA bioastronautics roadmap](#)
- [ESA Human Health Research](#)
- [JAXA Human space activities](#)
- [Canadian Space Policy Framework](#)
- [Government of Canada Innovation Agenda](#)
- [Requirements for LSRS Bio-Monitoring](#)
- [Requirements for LSRS Bio-Analysis](#)

The following documents will also be provided to the chosen contractor:

- [Requirements for LSRS Bio-Monitoring](#)
- [Requirements for LSRS Bio-Analysis](#)

ANNEX “B” - BASIS OF PAYMENT

B.1 WORK PERFORMED UNDER THE CONTRACT

This following section applies to the Work described in the Statement of Work (SOW) in Annex “A” to which this basis of payment applies.

Prices are to be presented in Canadian funds, Canadian customs duties and excise taxes included (if applicable) and applicable sales taxes extra and shown separately (if applicable). Prices are FOB destination (Canadian Space Agency, Longueuil, Quebec).

The schedule of milestones for which payments will be made in accordance with the Contract is as presented in the Table B1 below.

Table B1 – Schedule of payment milestones

Payment Milestones No.	Corresponding SOW Deliverables	Deliverables Description	Months After Contract Award (MACA) or firm date	Percentage of Overall Cost	All inclusive Payment
1	1 & 2	Kick-Off Meeting (KOM) held & Minutes of KOM accepted by the CSA	1	5%	\$
2	3 & 4	Documents for the mid-term teleconference accepted by the CSA; mid-term teleconference held & minutes of the mid-term teleconference accepted by the CSA	3	5%	\$
3	5 & 6	Draft SWOT report and draft recommendations report accepted by the CSA.	5	30%	\$
4	7 & 8	Final version of data files, SWOT report, recommendations report, PowerPoint presentations are all accepted by CSA; Background Intellectual Property Report accepted by CSA (if applicable).	6 ▼ On or before July 31, 2017.	60%	\$

Sub-total:	\$
Goods and Services Tax (GST) @ 5%:	\$
Quebec Sales Tax (QST) @ 9.975%:	\$
Travel and Living ¹ :	\$
Total Firm Fixed Price	\$

Note 1: The Travel and Living (T&L) allocation as proposed by the bidder will become a ceiling price. The Contractor will be reimbursed for the actual cost of travel and living expenditures until such ceiling is reached. Any T&L expenditure above the ceiling will be at the Contractor’s own expense unless it is decided otherwise by the Contracting Authority throughout the performance of the Work.

B.1.1 Travel and Living Expenses

When and if applicable, the Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, in accordance with the meal, private vehicle and incidental expense allowances specified in Appendices B, C and D of the Treasury Board Travel Directive, and with the other provisions of the directive referring to “travellers”, rather than those referring to “employees”.

All travel must have been explicitly pre-authorized by the Technical Authority. All payments are subject to government audit.

ANNEX "C" – CONTRACTOR'S DISCLOSURE OF BACKGROUND INTELLECTUAL PROPERTY

If applicable, and in accordance with Article 7.13 of the Contract (Disclosure of Intellectual Property), and with the *Article 28 – Records and Disclosure of Foreground Information* of the [2040](#) (2016-04-04) General Conditions for Research and Development, the Contractor must return to the Contracting Authority this completed Annex "C". Canada will not release any final payment owed to the Contractor unless it has received and accepted this completed Annex "C" as per the requirements below.

1. **Contractor's Legal Name:**
2. **Project Title supported by the Contract:** Environmental Scan Study for Space Health and Life Sciences for the Canadian Space Agency
3. **CSA Technical Authority:**
4. **Contract #:** 9F008-16-0477/001/MTD
5. **Date of disclosure:**
- 6.
- 7.
8. **Was there any Contractor's own Background Intellectual Property brought to the project?**

Yes → Complete Table C1 (Disclosure of Background Intellectual Property)

No

Definitions (from the [2040](#) (2016-04-04) General Conditions for Research and Development) which form part of this Contract):

1. **Intellectual Property (IP):** means any information or knowledge of an industrial, scientific, technical, commercial, literary, dramatic, artistic or otherwise creative nature relating to the Work, whether oral or recorded in any form or medium and whether or not subject to copyright; this includes but is not limited to any inventions, designs, methods, processes, techniques, know-how, show-how, models, prototypes, patterns, samples, schematics, experimental or test data, reports, drawings, plans, specifications, photographs, manuals and any other documents, Software, and Firmware.
2. **Background Information / Background Intellectual Property (BIP):** means all Intellectual Property that is not Foreground Information that is incorporated into the Work or necessary for the performance of the Work and that is proprietary to or the confidential information of the Contractor, its subcontractors or any other third party;
3. **Foreground Information / Foreground Intellectual Property (FIP):** means all Intellectual Property first conceived, developed, produced or reduced to practice as part of the Work under the Contract;

ANNEX “C” – CONTRACTOR’S DISCLOSURE OF BACKGROUND INTELLECTUAL PROPERTY
(continued)

Instructions to the Contractor

BIP Disclosure:

If applicable, the Contractor is required to review and update the preliminary BIP disclosure report included in its Bid. At Contract closure, only the BIP elements that were actually used to develop the FIP must be listed in the final BIP disclosure report.

General Instructions for completing the C1 BIP table:

- Tables must be structured according to the CSA IP forms provided in this Annex “C”.
- Each IP element must have a unique ID# in order to easily link the elements of the different tables.
- Titles of the IP elements must be descriptive enough for the project stakeholders to get a general idea of the nature of the IP.
- Numbers and complete titles of reference documents must be included.

The CSA Technical Authority is responsible to review and approve the Table C1 Canada before the closing of the Contract.

ANNEX “C” – CONTRACTOR’S DISCLOSURE OF BACKGROUND INTELLECTUAL PROPERTY (continued)

**TABLE C1:
 DISCLOSURE OF BACKGROUND INTELLECTUAL PROPERTY (BIP) BROUGHT TO THE PROJECT BY THE CONTRACTOR (if applicable)**

1 BIP ID#	2 Project Element	3 Title of the BIP	4 Type of IP	5 Type of access to the BIP required to use/improve the FIP	6 Description of the BIP	7 Reference Documentation	8 Origin of the BIP	9 Owner of the BIP
<p><i>Provide ID# specific to each BIP element brought to the project e.g. BIP-CON-99</i></p> <p><i>Where “CON” is the contract acronym.</i></p>	<p><i>Describe the system or sub system in which BIP is integrated (e.g. camera, control unit, etc.).</i></p>	<p><i>Use a title that is descriptive of the BIP element integrated to the Work.</i></p>	<p><i>Is the BIP in the form of an invention, trade secret, copyright, design, patent?</i></p>	<p><i>Describe how the BIP will be available for Canada to use the FIP (e.g. BIP information will be incorporated in deliverables documents, software will be in object code, etc.).</i></p>	<p><i>Describe briefly the nature of the BIP (e.g. mechanical design, algorithm, software, method, etc.).</i></p>	<p><i>Provide the number and fill title of the reference documents where the BIP is fully described. The reference document must be available to Canada. Provide patent # for Canada if BIP is patented.</i></p>	<p><i>Describe circumstances of the creation of the BIP. Was it developed from internal research or through a contract with Canada? If so, provide contract number.</i></p>	<p><i>Name the organization that owns the BIP. Provide the name of the subcontractor if not owned by the prime contractor.</i></p>

**ATTACHMENT 1 TO PART 3:
ADDITIONAL CSA TECHNICAL BID PREPARATION INSTRUCTIONS**

IN ITS TECHNICAL BID, THE BIDDER SHOULD INCLUDE:

A. A Title / Project Identification Page:

The first page of the Technical Bid should include:

- i. The RFP name and file Number:
(Environmental Study Scan for Space Health and Life Sciences /
PWGSC File No.9F008-16-0477/001/MTD);
- ii. The Bidder's name, complete mailing address and Procurement Business Number (PBN).

B. An Executive Summary:

The Bidder should provide an Executive Summary which is a stand-alone document suitable for public dissemination, for example, on the CSA's web site. The Executive Summary should not exceed two pages in length (8.5" x 11") and should highlight the following elements:

- i. Work objectives;
- ii. Major milestones and deliverables.

C. A Table of Contents:

The table of contents should be formatted such that its headings are linked to their respective location in the bid for ease of reference when using the bid's soft copy version.

D. A Contract Work Breakdown Structure:

The Bidder should provide a high-level Contract Work Breakdown Structure (CWBS) that is used for estimating resources and scheduling the Work.

E. A Schedule:

The Bidder should provide a project timetable that relates tasks, milestones and deliverables. A Gantt chart and/or PERT chart should be used to illustrate the schedule. The schedule should show significant details for events associated with the achievement of major tasks, milestones and deliverables. The Bidder should demonstrate how required milestones will be met. Linkage between activities should also be identified in the schedule.

F. A List of Acronyms:

All the acronyms used in the Technical Bid should be listed and defined under a single table of acronyms.

**ATTACHMENT 1 TO PART 3:
ADDITIONAL CSA TECHNICAL BID PREPARATION INSTRUCTIONS (continued)**

IN ITS TECHNICAL BID, THE BIDDER MUST:

1. Provide all the information required for the mandatory technical requirement number MT1 as described under the Table I – *Mandatory Technical Requirements*.
2. Provide the resumes of the all the proposed resources as described under the technical requirement number MT2 under the Table I – *Mandatory Technical Requirements*.

ATTACHMENT 1 TO PART 4: MANDATORY AND POINT RATED EVALUATION CRITERIA

A. BID EVALUATION PROCESS (MANDATORY AND POINT RATED EVALUATION CRITERIA):

1. Bids will first be evaluated to assess compliance to the mandatory technical requirements listed under the **Table I** of the attachment 1 to part 3 of this RFP. Bids meeting the two mandatory technical requirements will be retained and will proceed to the second step of the evaluation process. Otherwise, the bid evaluation will stop.
2. Bids meeting the two mandatory requirements MT1 **and** MT2 will be evaluated against the rated technical criteria listed herein. Bids who have achieved the mandatory minimum passing scores for the technical category will proceed to a financial evaluation to be performed solely by Public Works and Government Services Canada (PWGSC). Such financial evaluation will only begin once the Canadian Space Agency (CSA) has submitted a duly signed technical evaluation report to PWGSC. **If a financial bid is found to exceed the maximum budget allowed, the overall bid will be declared non-responsive regardless if the technical bid had passed both the mandatory and point rated technical requirements.**
3. PWGSC will compute the overall scoring of each individual bid and will determine which bid should be recommended for contract award (if any).

B. RESPECTIVE WEIGHT OF THE TECHNICAL RATED EVALUATION CRITERIA:

The respective weight of each of the four rated technical evaluation criteria is as such:

Criterion ID	Criterion Title	Minimum passing mark per subset	Overall criterion passing mark	Maximum Possible score
1	Qualifications:		▶ 15	30 (T1)
	T1.1 Proposed Personnel	5		15
	T1.2 Understanding the objectives and tasks	10		15
2	Knowledge:		▶ 10	30 (T2)
	T2.1 Canadian research community in life sciences	5		10
	T2.2 Experience in similar studies	N/A		10
	T2.3 Analysis of the scientific literature	5		10
3	Proposed approach	10	▶ 10	20 (T3)
4	Management plan	10	▶ 10	20 (T4)
Total:			45 points	100 points (T1+T2+T3+T4)

C. RATED TECHNICAL EVALUATION CRITERIA:

The rated technical evaluation criteria along with their respective benchmark statements are detailed in the table II on the following pages.

TABLE I – MANDATORY TECHNICAL REQUIREMENTS (MT) ► “Pass or Fail”

ID	Requirement Title, Description & Requirements	Bidder's Compliance Statement (Yes or No)	Detailed Substantiation Bid Reference (Specify the section and page number of the proposal where the requirement is addressed.)
1	<p>MT1</p> <p>Past Experience: Bidder must demonstrate past experience in conducting studies for a government entity (federal, provincial, territorial) or an industrial association on a minimum two (2) of the three (3) following domains:</p> <ul style="list-style-type: none"> i. Environmental Scan related to science or technology; ii. Strengths, Weaknesses, Opportunities and Threat Analyses; iii. Development of scientific roadmaps. <p>In support of the above, Bidder must submit the following documentation:</p> <p>1A: At least two (2) studies carried out within the last five (5) years. The following information must be provided in a one-page summary: Title, client's contact information, description of the study and scope, date of the final report, key findings and outcomes.</p> <p>1B: At least two (2) letters of reference from past clients listed in 1A. Official letters duly signed by the Clients must indicate key outcomes of the study.</p>		
2	<p>MT2</p> <p>Bidders must provide, as part of their technical proposal, the curriculum vitae (résumés) of all proposed resource(s) and identify the role of each resource(s). The experience listed in the CVs must provide supporting information demonstrating where and how such experience was obtained.</p>		

TABLE II- POINT RATED REQUIREMENTS

The respective weight of each of the four rated technical evaluation criteria is summarized as such:

Criterion ID	Criterion Title	Minimum passing mark per subset	Overall criterion passing mark	Maximum possible score
1	Qualifications:			30 (T1) ▼
	T1.1 Proposed Personnel	5	▶ 15	15
	T1.2 Understanding the objectives and tasks	10		15
2	Knowledge:			30 (T2) ▼
	T2.1 Canadian research community in life sciences	5	▶ 10	10
	T2.2 Experience in similar studies	N/A		10
	T2.3 Analysis of the scientific literature	5		10
3	Proposed approach	10	▶ 10	20 (T3)
4	Management plan	10	▶ 10	20 (T4)
Total:			45 points	100 points (T1+T2+T3+T4)

As explained under the section 4.2 (Part 4) of this bid solicitation document, the overall technical merit score will account for 60% of the overall bid score while the price will account for the remaining 40%. The following tables outline in details what are the expectations and corresponding scoring benchmarks for each rated technical criterion.

TABLE II- POINT RATED REQUIREMENTS (CONTINUED)

Qualifications:					
		A	B	C▼	D
		15 points	10 points	5 points (passing score)	0 points
T1	T1.1 Qualification of proposed personnel: Minimum passing score is "C" or 5 points.	The team has the appropriate scientific expertise, including at least one person with post-graduate qualifications in life science AND at least one person with post-graduate qualifications relevant to personalized medicine.	The team has the appropriate scientific expertise, including one person with post-graduate qualifications in life science OR one person with post-graduate qualifications relevant to personalized medicine.	The team has post-graduate scientific expertise, but not in life sciences. The proposal has a feasible plan for correcting this deficiency.	The team expertise is not addressed in the bid or information on one of the team members is completely lacking.
	T1.2 Understanding the objectives and tasks of the project: Minim passing score is "B" or 10 points.	The proposal elaborates on the objectives and tasks of the projects AND situates the project in the current context of life sciences and space life science research.	B▼ 10 points (passing score) The proposal elaborates on the objectives but does not situate the project in the context of life science research in Canada.	C 5 points The proposal does not situate the project in the context of life science research in Canada. Understanding of the tasks is poor.	D 0 points The proposal repeats the Statement of Work (SOW); no additional insight or understanding is demonstrated.

TABLE II- POINT RATED REQUIREMENTS (CONTINUED)

Knowledge:						
T2	T2.1	Canadian research community in life sciences (for example, understanding of where research happens, the approximate size of the research community, and how research is funded): Minimum passing score is "B" or 5 points.	A 10 points	B▼ 5 points (passing score)	C 2.5 points	D 0 points
		In depth knowledge of the Canadian research community in life sciences is clearly demonstrated.	The proposal demonstrates knowledge of research in life sciences but not at the national level.	The proposal suggests a limited knowledge of research in the area of life sciences.	The proposal does not demonstrate knowledge in life science research.	
	T2.2	Experience in similar studies for a government (federal, provincial, territorial): No minimum score required.	A 10 points	B 5 points	C 2.5 points	D 0 points
		Extensive experience in similar studies performed for the federal, territorial or a provincial government is demonstrated.	The team has performed at least one (1) similar study for a federal, provincial or territorial government.	The proposal demonstrates knowledge of conducting similar studies but not for governments.	The team has not performed similar studies.	
T2.3		Analysis of the scientific literature: Minimum passing score is "B" or 5 points.	A 10 points	B▼ 5 points (passing score)	C 2.5 points	D 0 points
			The proposal demonstrates an extensive experience in analysis of the scientific literature.	The team has some experience in analysis of the scientific literature.	Limited knowledge of methods of analysis of the scientific literature.	No evidence of experience in analysis of the scientific literature shown in the proposal.

TABLE II- POINT RATED REQUIREMENTS (CONTINUED)

Proposed approach:					
T3	Proposed approach: Minimum passing score is "B" or 10 points.	A 20 points	B ▼ 10 points (passing score)	C 5 points	D 0 points
		The approach is clear and detailed, providing a high confidence that objectives will be achieved.	The approach is clear but details are lacking.	The approach is not very detailed and does not provide confidence objective achievement.	The proposed approach will not achieve the objectives and is not clearly presented.

Management plan:					
T4	Management plan: Minimum passing score is "C" or 10 points.	A 20 points	B 15 points	C ▼ 10 points (passing score)	D 0 points
		The proposal presents realistic work tasks and schedule to meet objectives, AND an assessment of effort required per task, AND presents risks and mitigation strategies for the management approach.	The proposal contains realistic work tasks and schedule to meet objectives, AND an assessment of effort required per task.	The proposal contains realistic work tasks and schedule to meet objectives.	References to the management aspects of the proposal are absent from the proposal.

Solicitation No. - N° de l'invitation
9F008-16-0477
Client Ref. No. - N° de réf. du client
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Amd. No. - N° de la modif.
File No. - N° du dossier
9F008-16-0477

Buyer ID - Id de l'acheteur
MTD100
CCC No./N° CCC - FMS No./N° VME

*****END OF RFP*****