RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau
Quebec
K1A 0S5
Bid Fax: (819) 997-9776

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 énoncées 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

Title - Sujet Laboratory Information Management S Laboratory Information Management System (LIMS)	
Solicitation No. - N° de l'invitation 45045-190134/C	**Date** 2022-04-25
Client Reference No. - N° de référence du client 000011591	
GETS Reference No. - N° de référence de SEAG PW-$EEM-050-40862	
File No. - N° de dossier 050eem.45045-190134	**CCC No./N° CCC - FMS No./N° VME**

Solicitation Closes - L'invitation prend fin

at - à 04:00 PM Eastern Daylight Saving Time EDT
on - le 2022-06-06 Heure Avancée de l'Est HAE

F.O.B. - F.A.B.
Plant-Usine: ☐ **Destination:** ☐ **Other-Autre:** ☐

Address Enquiries to: - Adresser toutes questions à: Pengelly, David	**Buyer Id - Id de l'acheteur** 050eem
Telephone No. - N° de téléphone (343) 552-5193 ( )	**FAX No. - N° de FAX** ( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:
STATISTICS CANADA
Canadian Health Measures Survey
150 TUNNEYS PASTURE DRWY
MAIN BLDG/ (SC0005)
OTTAWA
Ontario
K1A0T6
Canada

Instructions: See Herein

Instructions: Voir aux présentes

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

Delivery Required - Livraison exigée See Herein – Voir ci-inclus	**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**

Issuing Office - Bureau de distribution
Middleware division / Division Intergiciels
Terrasses de la Chaudière
4th Floor, 10 Wellington Street
4th etage, 10, rue Wellington
Gatineau
Quebec
K1A 0S5

Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM Destination	Plant/Usine	Delivery Req. Livraison Req.	Del. Offered Liv. offerte
3	Laboratory Information Management System RFP2	45045	I - 1	1	Each	$	$	See Herein – Voir ci-inclus	

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THIS BID SOLICITATION CANCELS AND SUPERSEDES PREVIOUS BID SOLICITATION NUMBER 45045-190134/B DATED 2021/12/10 WITH A CLOSING OF 2022/01/19 AT 1400HRS EASTERN STANDARD TIME (EST).

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 and Additional Information: includes the certifications and additional information 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.

The Annexes include Annex A - Statement of Requirement, Annex B - Basis of Payment, and Annex C - PWGSC TPSGC 572 Task Authorization Form.

The Attachments include Attachment 1 to Part 3 - Electronic Payment Instruments, Attachment 2 to Part 3 – Financial Bid, Attachment 1 to Part 4 – Evaluation Criteria, Attachment 1 to Part 5 - Federal Contractors Program for Employment Equity - Certification, Attachment 2 to Part 5 – Submission Form

and any other Annexes or Attachments.

1.2 Summary

1.2.1 Brief Description

Statistics Canada (hereinafter referred to as "StatCan") has a requirement for a Laboratory Information Management System (LIMS) Solution (hereinafter referred to as "the Solution"). The Solution must be a complete and bug free "Commercial Off the Shelf Solution" (COTS) that must meet the requirements in this document. StatCan is looking for perpetual licenses to be installed on its own Cloud network. The Solution must enable and support the Canadian Health Measures Survey (CHMS) to manage biological sample (biospecimen) collection across the 6 time zones of Canada.

The Canadian Health Measures Survey (CHMS), is a national survey conducted by Statistics Canada in partnership with Health Canada and the Public Health Agency of Canada (PHAC). The purpose of the survey is to collect nationally representative information regarding the general health and lifestyles of Canadians.

The CHMS is collecting information on the health of Canadians by means of questionnaires, physical measures and biospecimen collection. Analyses of biospecimens, for blood, urine, and saliva are done for a variety of biomarkers such as nutrition, chronic and infectious diseases, environmental exposure, etc.

Data is collected through personal interviews at two of Statistics Canada's Mobile Examination Centers (MEC). During the MEC visit, the respondents are interviewed and basic information on demographics and health is collected. Later on, during the interview, blood, urine, and saliva samples are collected based on the respondent's given consent and their answers to a series of screening questions in order to ensure their safety.

Approximately 2500 respondents participate in the CHMS every year. During that time, the survey collects data and biospecimens from 8 different sites (for a duration of 6 weeks each). Only one Mobile Examination Center (MEC) is used at a time and the same teams travel from one site to another. The CHMS then collaborates with external laboratories across Canada to analyse and store the samples collected.

For respondent visits to its mobile examination center, the CHMS is currently using an application that was developed in-house. At this time, the CHMS is performing a redesign of all its applications and seeking ways to improve its processes, which includes the management of biospecimen collection.

The MEC is run by 2 teams of around 8 employees that alternate shifts (MEC collection runs from early morning to late evening).

The following short video gives a tour of the inside of the MEC: https://youtu.be/z7w0avNMUtk

The layout of the MEC can be found in Appendix A of the Statement of Requirement (Layout of the Production MEC).

1.2.2 Trade Agreements

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the Canada-Chile Free Trade Agreement (CCFTA), the Canada-Peru Free Trade Agreement (CPFTA), the Canada-Colombia Free Trade Agreement (CColFTA), the Canada-Panama Free Trade Agreement (CPanFTA), the Canada-European Union Comprehensive Economic and Trade Agreement (CETA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Canadian Free Trade Agreement (CFTA), the Canada-Ukraine Free Trade Agreement (CUFTA), the Canada-Korea Free Trade Agreement (CKFTA), Canada-United States-Mexico Agreement (CUSMA) and the Canada-United Kingdom Trade Continuity Agreement (Canada-UK TCA).

1.2.3 Comprehensive Land Claim Agreements (CLCA)

The resulting contract will not include deliveries of goods within locations that are subject to Comprehensive Land Claims Agreements (CLCAs).

1.2.4 The Federal Contractors Program (FCP)

The Federal Contractors Program (FCP) for employment equity applies to this procurement; refer to Part 5 – Certifications and Additional Information, Part 7 - Resulting Contract Clauses and the annex titled Federal Contractors Program for Employment Equity - Certification.

1.2.5 epost Connect

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit via e-post Connect by the date and time indicated on page 1 of the bid solicitation. For

additional information, Bidders must refer to Part 2 - Bidder Instructions and Part 3 - Bid Preparation Instructions, of the bid solicitation document. For further information on e-post Connect bidders must contact the Bid Receiving Unit by e-mail at: tpsgc.dgareceptiondessoumissionsabbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca.

1.2.6 Phased Bid Compliance Process (PBCP)

The Phased Bid Compliance Process applies to this requirement.

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

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) 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 (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 120 days

2.2 Submission of Bids

a) Bids must be submitted **ONLY** to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit **via epost Connect**, time and place indicated on page 1 of the bid solicitation.

Note: For bidders needing to register with epost Connect the email address is:

tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions 2003, or to send bids through an epost Connect message if the Bidder is using its own licensing agreement for epost Connect.

To submit a bid using epost Connect service, the Bidder must either:

i. send directly its bid only to the specified PWGSC Bid Receiving Unit, using its own licensing agreement for epost Connect provided by Canada Post Corporation; or

ii. send as early as possible, and in any case, **at least six business days prior to the solicitation closing date and time**, (in order to ensure a response), an email that includes the bid solicitation number to the specified PWGSC Bid Receiving Unit requesting to open an epost Connect conversation. Requests to open an epost Connect conversation received after that time may not be answered.

b) If the Bidder sends an email requesting epost Connect service to the specified Bid Receiving Unit in the bid solicitation, an officer of the Bid Receiving Unit will then initiate an epost Connect conversation. The epost Connect conversation will create an email notification from Canada Post Corporation prompting the Bidder to access and action the message within the conversation. The Bidder will then be able to transmit its bid afterward at any time prior to the solicitation closing date and time.

c) If the Bidder is using its own licensing agreement to send its bid, the Bidder must keep the epost Connect conversation open until at least 30 business days after the solicitation closing date and time.

d) The bid solicitation number should be identified in the epost Connect message field of all electronic transfers.

e) It should be noted that the use of epost Connect service requires a Canadian mailing address. Should a bidder not have a Canadian mailing address, they may use the Bid Receiving Unit address specified in the solicitation in order to register for the epost Connect service.

f) The Bid Receiving Unit will send an acknowledgement of the receipt of bid document(s) via the epost Connect conversation, regardless of whether the conversation was initiated by the supplier using its own license or the Bid Receiving Unit. This acknowledgement will confirm only the receipt of bid document(s) and will not confirm if the attachments may be opened nor if the content is readable.

g) Bidders must ensure that they are using the correct email address for the Bid Receiving Unit when initiating a conversation in epost Connect or communicating with the Bid Receiving Unit and should not rely on the accuracy of copying and pasting the email address into the epost Connect system.

h) A bid transmitted by epost Connect service constitutes the formal bid of the Bidder and must be submitted in accordance with section 05 of the 2003 (2020-05-28), Standard Instructions – Goods or Services - Competitive Requirements.

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

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 5 calendar 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.

2.4 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 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.

2.5 Bid Challenge and Recourse Mechanisms

(a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.

(b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada’s BuyandSell website, under the heading “Bid Challenge and Recourse Mechanisms” contains information on potential complaint bodies such as:

- Office of the Procurement Ombudsman (OPO)
- Canadian International Trade Tribunal (CITT)

(c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

3 BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

The Bidder must submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications and additional information

Canada requests that the Bidder submits its bid in separately bound sections as follows:
Section I: Technical Bid - (1 pdf copy and 1 editable copy of the template document in the format which it was provided)

Section II: Financial Bid - (1 pdf copy and 1 editable copy of the template document in the format which it was provided)

Section III: Certifications and Additional Information (1 pdf copy and 1 editable copy of the template documents in the format which it was provided)

If there is a discrepancy between the wording of the pdf copy and the editable copy, the wording of the pdf copy will have priority over the wording of the editable copy.

Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should 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.

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

Bidders must submit their financial bid in Attachment 2 to Part 3 – Financial Bid.

3.1.1 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Attachment 1 to Part 3 – Electronic Payment Instruments, to identify which ones are accepted.

If Attachment 1 to Part 3 – Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.1.2 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5 which includes Attachment 1 to Part 5 and Attachment 2 to Part 5.

4 EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical evaluation criteria.

An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Phased Bid Compliance Process

4.1.1.1 General

(a) Canada will conduct the Phased Bid Compliance Process (PBCP) described below for this requirement ONLY if Canada receives 6 or fewer Bids by the bid solicitation closing date.

(b) Notwithstanding any review by Canada at Phase I or II of the PBCP, Bidders are and will remain solely responsible for the accuracy, consistency and completeness of their Bids and Canada does not undertake, by reason of this review, any obligations or responsibility for identifying any or all errors or omissions in Bids or in responses by a Bidder to any communication from Canada.
THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE. THE BIDDER ALSO ACKNOWLEDGES THAT ITS RESPONSE TO A NOTICE OR A COMPLIANCE ASSESSMENT REPORT (CAR) (EACH DEFINED BELOW) IN PHASE I OR II MAY NOT BE SUCCESSFUL IN RENDERING ITS BID RESPONSIVE TO THE MANDATORY REQUIREMENTS THAT ARE THE SUBJECT OF THE NOTICE OR CAR, AND MAY RENDER ITS BID NON-RESPONSIVE TO OTHER MANDATORY REQUIREMENTS.

(c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.

(d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2018-05-28) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).

(e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

4.1.1.2 Phase I: Financial Bid

(a) After the closing date and time of this bid solicitation, Canada will examine the Bid to determine whether it includes a Financial Bid and whether any Financial Bid includes all information required by the solicitation. Canada's review in Phase I will be limited to identifying whether any information that is required under the bid solicitation to be included in the Financial Bid is missing from the Financial Bid. This review will not assess whether the Financial Bid meets any standard or is responsive to all solicitation requirements

(b) Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.

(c) If Canada determines, in its absolute discretion that there is no Financial Bid or that the Financial Bid is missing all of the information required by the bid solicitation to be included in the Financial Bid, then the Bid will be considered non-responsive and will be given no further consideration.

(d) For Bids other than those described in c), Canada will send a written notice to the Bidder ("Notice") identifying where the Financial Bid is missing information. A Bidder, whose Financial Bid has been found responsive to the requirements that are reviewed at Phase I, will not receive a Notice. Such Bidders shall not be entitled to submit any additional information in respect of their Financial Bid.

(e) The Bidders who have been sent a Notice shall have the time period specified in the Notice (the "Remedy Period") to remedy the matters identified in the Notice by providing to Canada, in writing, additional information or clarification in response to the Notice. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the Notice.

(f) In its response to the Notice, the Bidder will be entitled to remedy only that part of its Financial Bid which is identified in the Notice. For instance, where the Notice states that a required line item has been left blank, only the missing information may be added to the Financial Bid, except that, in those instances where the addition of such information will necessarily result in a change to other calculations previously submitted in its Financial Bid, (for example, the calculation to determine a

total price), such necessary adjustments shall be identified by the Bidder and only these adjustments shall be made. All submitted information must comply with the requirements of this solicitation.

(g) Any other changes to the Financial Bid submitted by the Bidder will be considered to be new information and will be disregarded. There will be no change permitted to any other Section of the Bidder's Bid. Information submitted in accordance with the requirements of this solicitation in response to the Notice will replace, in full, **only** that part of the original Financial Bid as is permitted above, and will be used for the remainder of the bid evaluation process.

(h) Canada will determine whether the Financial Bid is responsive to the requirements reviewed at Phase I, considering such additional information or clarification as may have been provided by the Bidder in accordance with this Section. If the Financial Bid is not found responsive for the requirements reviewed at Phase I to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.

(i) Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

4.1.1.3 Phase II: Technical Bid

(a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Mandatory Criterion. The Eligible Mandatory Criterion are those from article 4.1.2.1 Point Rated Technical Criteria with Mandatory Minimum Point Rating, MM01 (E01), MM02 (E02), MM03 (E04), MM04 (E05), MM05 (E06), MM06 (E07), MM07 (E09), MM08 (E10), MM09 (E11), MM10 (E12), MM11 (E13), MM12 (E14), MM13 (E15), MM14 (E16), MM15 (E17), MM16 (E18), MM17 (E19), MM18 (E20), MM19 (E21), MM20 (E22), MM21 (E24), MM22 (E28), MM23 (E29), MM24 (E31), MM25 (E33), MM26 (E35), MM27 (E36), MM28 (E37), MM29 (E38), and MM30 (E47) exclusively.

This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Mandatory Criteria are all mandatory technical criteria that are identified in this solicitation as being subject to the PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.

(b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.

(c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the CAR.

(d) The Bidder's response must address only the Eligible Mandatory Criteria listed in the CAR as not having been achieved, and must include only such information as is necessary to achieve such compliance. Any additional information provided by the Bidder which is not necessary to achieve such compliance will not be considered by Canada, except that, in those instances where such a response to the Eligible Mandatory Criteria specified in the CAR will necessarily result in a consequential change to other parts of the Bid, the Bidder shall identify such additional changes, provided that its response must not include any change to the Financial Bid.

(e) The Bidder's response to the CAR should identify in each case the Eligible Mandatory Criterion in the CAR to which it is responding, including identifying in the corresponding section of the original Bid, the wording of the proposed change to that section, and the wording and location in the Bid of any other consequential changes that necessarily result

from such change. In respect of any such consequential change, the Bidder must include a rationale explaining why such consequential change is a necessary result of the change proposed to meet the Eligible Mandatory Criterion. It is not up to Canada to revise the Bidder's Bid, and failure of the Bidder to do so in accordance with this subparagraph is at the Bidder's own risk. All submitted information must comply with the requirements of this solicitation.

(f) Any changes to the Bid submitted by the Bidder other than as permitted in this solicitation, will be considered to be new information and will be disregarded. Information submitted in accordance with the requirements of this solicitation in response to the CAR will replace, in full, **only** that part of the original Bid as is permitted in this Section.

(g) Additional or different information submitted during Phase II permitted by this section will be considered as included in the Bid, but will be considered by Canada in the evaluation of the Bid at Phase II only for the purpose of determining whether the Bid meets the Eligible Mandatory Criteria. It will not be used at any Phase of the evaluation to increase or decrease any score that the original Bid would achieve without the benefit of such additional or different information. For instance, an Eligible Mandatory Criterion that requires a mandatory minimum number of points to achieve compliance will be assessed at Phase II to determine whether such mandatory minimum score would be achieved with such additional or different information submitted by the Bidder in response to the CAR. If so, the Bid will be considered responsive in respect of such Eligible Mandatory Criterion, and the additional or different information submitted by the Bidder shall bind the Bidder as part of its Bid, but the Bidder's original score, which was less than the mandatory minimum for such Eligible Mandatory Criterion, will not change, and it will be that original score that is used to calculate any score for the Bid.

(h) Canada will determine whether the Bid is responsive for the requirements reviewed at Phase II, considering such additional or different information or clarification as may have been provided by the Bidder in accordance with this Section. If the Bid is not found responsive for the requirements reviewed at Phase II to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.

(i) Only Bids found responsive to the requirements reviewed in Phase II to the satisfaction of Canada, will receive a Phase III evaluation.

4.1.1.4 Phase III: Final Evaluation of the Bid

(a) In Phase III, Canada will complete the evaluation of all Bids found responsive to the requirements reviewed at Phase II. Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

(b) A Bid is non-responsive and will receive no further consideration if it does not meet all mandatory evaluation criteria of the solicitation.

4.1.2 Technical Evaluation

4.1.2.1 Joint Venture Experience

a) Where the Bidder is a joint venture with existing experience as that joint venture, it may submit the experience that it has obtained as that joint venture.

Example: A bidder is a joint venture consisting of members L and O. A bid solicitation requires that the bidder demonstrate experience providing maintenance and help desk services for a period of 24 months to a customer with at least 10,000 users. As a joint venture (consisting of members L and O), the bidder has previously done the work. This bidder can use this experience to meet the requirement. If member L obtained this experience while in a joint venture with a third party N, however, that experience cannot be used because the third party N is not part of the joint venture that is bidding.

b) A joint venture bidder may rely on the experience of one of its members to meet any given technical criterion of this bid solicitation.

Example: A bidder is a joint venture consisting of members X, Y and Z. If a solicitation requires: (a) that the bidder have 3 years of experience providing maintenance service, and (b) that the bidder have 2 years of experience integrating hardware with complex networks, then each of these two requirements can be met by a different member of the joint venture. However, for a single criterion, such as the requirement for 3 years of experience providing maintenance services, the bidder cannot indicate that each of members X, Y and Z has one year of experience, totaling 3 years. Such a response would be declared non-responsive.

c) Joint venture members cannot pool their abilities with other joint venture members to satisfy a single technical criterion of this bid solicitation. However, a joint venture member can pool its individual experience with the experience of the joint venture itself. Wherever substantiation of a criterion is required, the Bidder is requested to indicate which joint venture member satisfies the requirement. If the Bidder has not identified which joint venture member satisfies the requirement, the Contracting Authority will provide an opportunity to the Bidder to submit this information during the evaluation period. If the Bidder does not submitted this information within the period set by the Contracting Authority, its bid will be declared non-responsive.

Example: A bidder is a joint venture consisting of members A and B. If a bid solicitation requires that the bidder demonstrate experience providing resources for a minimum number of 100 billable days, the bidder may demonstrate that experience by submitting either:

- Contracts all signed by A;
- Contracts all signed by B; or
- Contracts all signed by A and B in joint venture, or
- Contracts signed by A and contracts signed by A and B in joint venture, or
- Contracts signed by B and contracts signed by A and B in joint venture.

that show in total 100 billable days.

d) Any Bidder with questions regarding the way in which a joint venture bid will be evaluated should raise such questions through the Enquiries process as early as possible during the bid solicitation period.

4.1.2.2 Point Rated Technical Criteria with Mandatory Minimum Point Rating

Refer to the criteria indicated as MM (Mandatory Minimum) in Attachment 1 to Part 4 – Evaluation Criteria

4.1.2.3 Point Rated Technical Criteria

Refer to the criteria indicated as PR (Point Rated) in Attachment 1 to Part 4 – Evaluation Criteria

4.1.3 Financial Evaluation

4.1.3.1 Mandatory Financial Criteria

SACC Manual Clause A0220T (2014-06-26)

For bid evaluation and Contractor selection purposes only, the evaluated price of a bid will be determined in accordance with the Financial Bid detailed in Attachment 2 to Part 3.

4.2 Basis of Selection

4.2.1 Basis of Selection – 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 mandatory criteria; and

   c) obtain the required minimum points specified for criteria outlined in 4.1.2.1 Point Rated Technical Criteria with Mandatory Minimum Point Rating for the technical evaluation,

2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.

3. The selection will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70 % for the technical merit and 30 % 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 70 % (insert the percentage for technical merit).

5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30 % (insert the percentage for price).

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 score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

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 merit and price, respectively. The total available points equals 135 and the lowest evaluated price is $45,000 (45).

Basis of Selection - Highest Combined Rating Technical 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 = 36.56	92/135 x 60 = 40.89
	Pricing Score	45/50 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		1st	3rd	2nd

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 bid 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 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 will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

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

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the Integrity declaration form available on the Forms for the Integrity Regime website (http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information 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 provide the certifications or the additional information listed below within the time frame specified will render the bid non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of 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.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

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 (https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#).

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.

The Bidder must provide the Contracting Authority with a completed annex titled 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.

6 SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Financial Capability

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

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 Requirement

The Contractor must provide Laboratory Information Management System (LIMS) in accordance with the Requirement at Annex A.

7.1.1 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at 3.3 of the Annex B - Basis of Payment of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

7.1.2 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

7.1.2.1 Task Authorization Process

1. The Technical Authority will provide the Contractor with a description of the task using the PWGSC TPSGC 572 Task Authorization Form included in Annex C.

2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis(bases) and methods of payment as specified in the Contract.

3. The Contractor must provide the Technical Authority), within 10 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.

4. The Contractor must not commence work until a TA authorized by the Technical Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

7.1.2.2 Task Authorization Limit

a) The Technical Authority may authorize individual TAs inclusive of any revisions up to a limit of $25,000.00, Applicable Taxes extra. Any TA the total value of which would exceed that limit or any revision to a previously authorized TA that would increase the TA total value above that limit must be authorized by the Contracting Authority before issuance to the Contractor; and

b) The authority specified under paragraph a) of this clause is granted subject to the sum specified in the Contract under clause 7.6.2.2 - Limitation of Expenditure - Cumulative Total of all authorized Task Authorizations, is not being exceeded.

7.1.2.3 Canada's Obligation - Portion of the Work - Task Authorizations

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

7.1.2.4 Periodic Usage Reports - Contracts with Task Authorizations

A. The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.

B. The Contractor must provide this data in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.

Upon issue of a task authorization the data must be submitted on a quarterly basis to the Contracting Authority until the point the work is complete.

The quarterly periods are defined as follows:

1st quarter	April 1 to June 30
2nd quarter	July 1 to September 30
3rd quarter	October 1 to December 31
4th quarter	January 1 to March 31

.
The data must be submitted to the Contracting Authority no later than 30 calendar days after the end of the reporting period.

C. Reporting Requirement- Details

A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain:

a) For each authorized task:

i. the authorized task number or task revision number(s);

ii. a title or a brief description of each authorized task;

iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task,exclusive of Applicable Taxes;

iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;

v. the start and completion date for each authorized task; and

vi. the active status of each authorized task, as applicable.

b) For all authorized tasks:

i. the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and

ii. the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs.

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) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

2030 (2020-05-28), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

4003 (2010-08-16) Licensed Software; and
4004 (2013-04-25) Maintenance Support Services of Licensed Software apply to and form part of the Contract.

7.3 Security Requirements

7.3.1 There is no security requirement applicable to the Contract.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the Contract is from date of Contract award to one (1) year following award inclusive.

7.4.2 Delivery Date

All the deliverables must be received on or before the dates outlined in the Table of Deliverables at 7.3 of Annex A – Statement of Requirement.

7.4.3 Option to Extend the Contract

The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to 9 additional 1 year period(s) under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at least 15 calendar days before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

7.4.4 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex A – Statement of Requirement of the Contract.

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Nom:	**David Pengelly**
Titre:	Supply Specialist
Département:	Public Services and Procurement Canada
Directorat:	Business and Technology Solutions Sector (BTSS)
Addresse:	10 Wellington, Gatineau, QC. K1A 0S5
Téléphone:	343-552-5193
Courriel:	David.Pengelly@tpsgc-pwgsc.gc.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:	
Department:	Statistics Canada
Directorate	Center for Population Health Data
Address	100 Tunney's Pasture
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:
Address
Telephone
E-Mail address

7.6 Payment

7.6.1 Basis of Payment

7.6.1.1 Basis of Payment – Firm Price

i. For the Work described in 6.2 Solution Required User Licenses of the Statement of Requirement in Annex A :

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid a firm price for the costs in 2. Deliverables - Licenses and Maintenance and Support of Annex B – Basis of Payment for the qualities listed therein. Customs duties are included and Applicable Taxes are extra.

ii. For the Work described in 7 – Base Solution Delivery of the Statement of Requirement in Annex A :

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid a firm all inclusive price for the cost listed in 1. Milestone payment - Base Solution Delivery of the Statement of Requirement in Annex B – Basis of Payment in accordance with payment milestone in section 7.3 Delivery Table of SOR. Customs duties are included and Applicable Taxes are extra.

For the firm price portion of the Work only, Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.6.1.2 Basis of Payment – Individual Task Authorizations

The Contractor will be paid for the Work specified in the authorized task authorization, in accordance with C - Other Direct Expenses - Post Implementation Professional Services as Required (Task Authorization) of Annex B - Basis of payment.

Canada's liability to the Contractor under the authorized task authorization must not exceed the limitation of expenditure specified in the authorized task authorization. Custom duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized task authorization resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

7.6.2 Limitation of Expenditure

7.6.2.1 Limitation of Expenditure – Implementation, Licenses, and Maintenance and Support

1. Canada's total liability to the Contractor under the Contract, exclusive of task authorizations, must not exceed $ _____ (To be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
    a. when it is 75% committed, or
    b. four months before the contract expiry date, or
    c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.

3. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.6.2.2 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of $ 200,000.00. Customs duties are included, as applicable and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
   a. when it is 75 percent committed, or
   b. four (4) months before the contract expiry date, or
   c. as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions,

whichever comes first.

4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.6.3 Method of Payment

7.6.3.1 Milestone Payments Not subject to holdback

For the Work described in Table of Deliverables at 7.3 of Annex A – Statement of Requirement.

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

a) an accurate and complete claim for payment using PWGSC-TPSGC 1111 [https://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html], 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 [https://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html] 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.

7.6.3.2 Advance Payment Software Maintenance and Support

Canada will make an advance payment to the Contractor for Software Maintenance and/or Support within 30 days after receiving a complete invoice (and any required substantiating documentation), or within 30 days of any date specified in the Contract for making that advance payment, whichever is later.

If Canada disputes an invoice for any reason, Canada will pay the Contractor the undisputed portion of the invoice, as long as the undisputed items are separate line items on the invoice and are owing. In the case of disputed invoices, the invoice will only be considered to have been received for the purposes of the Section 19 of the 2030 - General Conditions entitled “Interest on Overdue Accounts” once the dispute is resolved.

The Contractor acknowledges that this is an advance payment. Payment in advance does not prevent Canada from exercising any or all potential remedies in relation to the non-performance of Software Maintenance and/or Support, if such Software Maintenance and Support provided later is not provided in accordance with or to the extent required by the terms and conditions of the Contract.

7.6.3.3 Monthly Payments For Task Authorization

For the Work described in Post Implementation Professional Services as Required section 9 of Annex A – Statement of Requirement, which is performed through the task authorization process.

Canada will pay the Contractor on a monthly basis for work performed during the month covered by the invoice in accordance with the payment provisions of the Contract if:

a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
b) all such documents have been verified by Canada;
c) the Work performed has been accepted by Canada.

7.6.4 Price Adjustment – Optional Goods and/or Services – Licenses and Maintenance and Support

At the time which options are exercised, the contractor's license prices and maintenance and support prices in 3.3 of Annex B – Basis of Payment will be adjusted annually upon notification from the Contractor prior to the anniversary date of the contract. The rates in the 3.3 of Annex B – Basis of Payment will be determined by using the rates in effect on the Contract at that date adjusted by the annual average percentage change of Indexes, All-items, of the Consumer Price Index (CPI), (Not Seasonally Adjusted), published in **Statistics Canada Table 18-10-0004-01** [https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1810000401] for the 12 month period ending three months before the expiration date of the current contract period. In accordance with the following formula:

Economic Price Adjustment (EPA) = [(A/B)-1] x100
A = Average of the monthly CPI for Canada, for the 12 months ending three months prior to the current contract year, rounded to 2 decimal places.
B = Average of the monthly CPI for Canada, for the 12 months ending fifteen months prior to the current contract year, rounded to 2 decimal places.

7.6.5 Taxes - Foreign-based Contractor

Unless specified otherwise in the Contract, the price includes no amount for any federal excise tax, state or local sales or use tax, or any other tax of a similar nature, or any Canadian tax whatsoever. The price, however, includes all other taxes. If the Work is normally subject to federal excise tax, Canada will, upon request, provide the Contractor a certificate of exemption from such federal excise tax in the form prescribed by the federal regulations.

Canada will provide the Contractor evidence of export that may be requested by the tax authorities. If, as a result of Canada's failure to do so, the Contractor has to pay federal excise tax, Canada will reimburse the Contractor if the Contractor takes such steps as Canada may require to recover any payment made by the Contractor. The Contractor must refund to Canada any amount so recovered.

7.6.6 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

a. Visa Acquisition Card;
b. MasterCard Acquisition Card;
c. Direct Deposit (Domestic and International);
d. Electronic Data Interchange (EDI);
e. Wire Transfer (International Only);
f. Large Value Transfer System (LVTS) (Over $25M)

7.6.7 Discretionary Audit

1. The following are subject to government audit before or after payment is made:

   a) The amount claimed under the Contract, as computed in accordance with the Basis of Payment, including time charged.
   b) The accuracy of the Contractor's time recording system.
   c) The estimated amount of profit in any firm-priced element, firm time rate, firm overhead rate, or firm salary multiplier, for which the Contractor has provided the appropriate certification. The purpose of the audit is to determine whether the actual profit earned on a single contract if only one exists, or the aggregate of actual profit earned by the Contractor on a series of negotiated contracts containing one or more of the prices, time rates or multipliers mentioned above, during a particular period selected, is reasonable and justifiable based on the estimated amount of profit included in earlier price or rate certification(s).
   d) Any firm-priced element, firm time rate, firm overhead rate, or firm salary multiplier for which the Contractor has provided a "most favoured customer" certification. The purpose of such audit is to determine whether the Contractor has charged anyone else, including the Contractor's most favoured customer, lower prices, rates or multipliers, for like quality and quantity of goods or services.

2. Any payments made pending completion of the audit must be regarded as interim payments only and must be adjusted to the extent necessary to reflect the results of the said audit. If there has been any overpayment, the Contractor must repay Canada the amount found to be in excess.

7.7 Invoicing Instructions

7.7.1 Invoicing Instructions - Progress Payment Claim - Supporting Documentation Required

In the case of the Work described in Table of Deliverables at 7.3 of Annex A – Statement of Requirement which is subject to a milestone payment, the Contractor must submit a claim for payment using form PWGSC-TPSGC 1111 [http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html] Claim for progress payment.

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111 [http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html], Claim for Progress Payment.

   Each claim must show:

   a) all information required on form PWGSC-TPSGC 1111 [http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html];
   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.

   Each claim must be supported by:

   a) 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 one original and two (2) copies of the claim on form PWGSC-TPSGC 1111 [http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/1111-eng.html], 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.

7.7.2 Invoicing Instructions – Task Authorizations

a) The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed;

b) Each invoice must be supported, as applicable, by the following:

   i. Task Authorization number
   ii. Date of invoice;
   iii. Invoice number
   iv. Contractor's name and address;
   v. Contractor's Procurement Business Number; and
   vi. Item / reference number, deliverable and / or quantity or description of work.

c) Invoices must be distributed as follows:

   i. The original must be forwarded, by email, to the Technical Authority identified under the section entitled "Authorities" of the Contract, for certification and payment; and
   ii. One soft copy must be forwarded by email to the Contracting Authority identified under the section entitled "Authorities" of the Contract. The Contract number and the Contracting Authority name must be entered in the subject line of the email.

7.8 Certifications and Additional Information

7.8.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

7.8.2 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.

7.9 Applicable Laws

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

7.10 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.

(a) the Articles of Agreement;
(b) the supplemental general conditions:
- 4003 (2010-08-16) Licensed Software; and
- 4004 (2013-04-25) Maintenance Support Services of Licensed Software.

(c) the general conditions:
- 2030 (2020-05-28) General Conditions - Higher Complexity - Goods

(d) Annex A, Statement of Requirement;
(e) Annex B, Basis of Payment;
(f) Annex C, Task Authorization Form PWGSC-TPSGC 572;
(g) the signed Task Authorizations (including all of its annexes, if any);
(h) the Contractor's bid dated _____, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award:*", as clarified on _____" ***or*** ",as amended on _____" *and insert date(s) of clarification(s) or amendment(s)*).

7.11 Insurance Requirements

SACC Manual clause G1005C (2016-01-28) Insurance - No Specific Requirement

7.12 Limitation of Liability

This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees. This section applies regardless of whether the claim is based in contract, tort, or another cause of action. The Contractor is not liable to Canada with respect to the performance of or failure to perform the Contract, except as described in this section and in any section of the Contract pre-establishing any liquidated damages. The Contractor is only liable for indirect, special or consequential damages to the extent described in this section, even if it has been made aware of the potential for those damages

First Party Liability:

a) The Contractor is fully liable for all damages to Canada, including indirect, special or consequential damages, caused by the Contractor's performance or failure to perform the Contract that relate to:
   i. any infringement of intellectual property rights to the extent the Contractor breaches the section of the general conditions entitled "Intellectual Property Infringement and Royalties";
   ii. physical injury, including death.

b) The Contractor is liable for all direct damages caused by the Contractor's performance or failure to perform the Contract affecting real or tangible personal property owned, possessed, or occupied by Canada.

c) Each of the Parties is liable for all direct damages resulting from its breach of confidentiality under the Contract. Each of the Parties is also liable for all indirect, special or consequential damages in respect of its unauthorized disclosure of the other Party's trade secrets (or trade secrets of a third party provided by one Party to another under the Contract) relating to information technology.

d) The Contractor is liable for all direct damages relating to any encumbrance or claim relating to any portion of the Work for which Canada has made any payment. This does not apply to encumbrances or claims relating to intellectual property rights, which are addressed under (a) above.

e) The Contractor is also liable for any other direct damages to Canada caused by the Contractor's performance or failure to perform the Contract that relate to:

   i. any breach of the warranty obligations under the Contract, up to the total amount paid by Canada (including Applicable Taxes) for the goods and services affected by the breach of warranty; and

   ii. any other direct damages, including all identifiable direct costs to Canada associated with re-procuring the Work from another party if the Contract is terminated either in whole or in part for default, up to an aggregate maximum for this subparagraph (ii) of the greater of 0.25 times the total estimated cost (meaning the dollar amount shown on the first page of the Contract in the block titled "Total Estimated Cost" or shown on each call-up, purchase order or other document used to order goods or services under this instrument), or $1,000,000.00.

f) In any case, the total liability of the Contractor under paragraph (e) will not exceed the total estimated cost (as defined above) for the Contract or $1,000,000.00, whichever is more.

g) If Canada's records or data are harmed as a result of the Contractor's negligence or willful act, the Contractor's only liability is, at the Contractor's own expense, to restore Canada's records and data using the most recent back-up kept by Canada. Canada is responsible for maintaining an adequate back-up of its records and data.

Third Party Claims:

a) Regardless of whether a third party makes its claim against Canada or the Contractor, each Party agrees that it is liable for any damages that it causes to any third party in connection with the Contract as set out in a settlement agreement or as finally determined by a court of competent jurisdiction, where the court determines that the Parties are jointly and severally liable or that one Party is solely and directly liable to the third party. The amount of the liability will be the amount set out in the settlement agreement or determined by the court to have been the Party's portion of the damages to the third party. No settlement agreement is binding on a Party unless its authorized representative has approved the agreement in writing.

b) If Canada is required, as a result of joint and several liability, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada by the amount finally determined by a court of competent jurisdiction to be the Contractor's portion of the damages to the third party. However, despite paragraph (a), with respect to special, indirect, and consequential damages of third parties covered by this section, the Contractor is only liable for reimbursing Canada for the Contractor's portion of those damages that Canada is required by a court to pay to a third party as a result of joint and several liability that relate to the infringement of a third party's intellectual property rights; physical injury of a third party, including death; damages affecting a third party's real or tangible personal property; liens or encumbrances on any portion of the Work; or breach of confidentiality.

c) The Parties are only liable to one another for damages to third parties to the extent described in this paragraph 3.

7.13 Dispute Resolution

a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.

c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.

d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "Dispute Resolution".

ATTACHMENT 1 TO PART 3 – ELECTRONIC PAYMENT INSTRUMENTS

As indicated in Part 3, clause 3.1.2, the Bidder must complete the information requested below, to identify which electronic payment instruments are accepted for the payment of invoices.

The Bidder accepts to be paid by any of the following Electronic Payment Instrument(s):

☐	VISA Acquisition Card;
☐	MasterCard Acquisition Card;
☐	Direct Deposit (Domestic and International);
☐	Electronic Data Interchange (EDI);
☐	Wire Transfer (International Only);
☐	Large Value Transfer System (LVTS) (Over $25M)

ATTACHMENT 2 TO PART 3 – FINACIAL BID

Refer to the attached file "45045-190134 Attachment 2 to Part 3 Financial Bid - Pièce jointe 2 a la partie 3 Soumission financière.xlsb

ATTACHMENT 1 TO PART 4 – EVALUATION CRITERIA

Refer to the attached file "45045-190134 EN Attachment 1 to Part 4.doc"

ATTACHMENT 1 TO PART 5 – FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

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 Employment and Social Development Canada (ESDC) – Labour's website.

Date:_____(YYYY/MM/DD) (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.
☐	A4	The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.
■	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. or;
☐	A5.2	The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. 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.
☐	B2	The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)

ATTACHMENT 2 TO PART 5 – SUBMISSION FORM

<table>
<tr><td colspan="2"><u>Submission Form – Formulaire de présentation</u></td></tr>
<tr><td>Bidders' full legal name
-
Dénomination sociale du soumissionnaire</td><td></td></tr>
<tr><td>Representative of the bidder
-
Représentant autorisé du soumissionnaire</td><td>
<table>
<tr><td>Name
Nom</td><td></td></tr>
<tr><td>Title
Titre</td><td></td></tr>
<tr><td>Address
Adresse</td><td></td></tr>
<tr><td>Telephone #
Téléphone</td><td></td></tr>
<tr><td>Email
Courriel</td><td></td></tr>
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<tr><td>Procurement Business Number (PBN)
-
Numéro d'entreprise-approvisionnement (NEA)</td><td></td></tr>
<tr><td>List of the Board of Directors Members
-
Liste des membres du conseil d'administration</td><td>
<table>
<tr><th>Name - Nom</th><th>Title - Titre</th></tr>
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</td></tr>
<tr><td>Jurisdiction of Contract
-
Compétence juridique relative au marché</td><td>Province (Select) – Province (Sélectionner)
ON (Default - Défaut)</td></tr>
<tr><td>Signature of Authorized Representative of Bidder
-
Signature du représentant autorisé du soumissionnaire</td><td></td></tr>
</table>

ANNEX A – STATEMENT OF REQUIREMENTS

STATISTICS CANADA

CANADIAN HEALTH MEASURES SURVEY (CHMS)

LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)

ANNEX A

Statement of Requirements

Version 2.4

April 6th, 2022

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1 Introduction

Statistics Canada (hereinafter referred to as "StatCan") has a requirement for a Laboratory Information Management System (LIMS) Solution (hereinafter referred to as "the Solution"). The Solution must be a complete and bug free "Commercial Off the Shelf Solution" (COTS) that must meet the requirements in this document. StatCan is looking for Perpetual User Licenses to be installed on its own Cloud network. The Solution must enable and support the Canadian Health Measures Survey (CHMS) to manage biological sample (biospecimen) collection across the 6 time zones of Canada.

In order to fully understand the terms found in this Statement of Requirements (SOR), please you should refer to the definition list found in **APPENDIX H** (Glossary of Terms & Acronyms).

2 Project Context

The Canadian Health Measures Survey (CHMS), is a national survey conducted by Statistics Canada in partnership with Health Canada and the Public Health Agency of Canada (PHAC). The purpose of the survey is to collect nationally representative information regarding the general health and lifestyles of Canadians.

The CHMS is collecting information on the health of Canadians by means of questionnaires, physical measures and biospecimen collection. Analyses of biospecimens, for blood, urine, and saliva are done for a variety of biomarkers such as nutrition, chronic and infectious diseases, environmental exposure, etc.

Data is collected through personal interviews at two of Statistics Canada's Mobile Examination Centers (MEC). During the MEC visit, the respondents are interviewed and basic information on demographics and health is collected. Later on, during the interview, blood, urine, and saliva samples are collected based on the respondent's given consent and their answers to a series of screening questions in order to ensure their safety.

Approximately 2500 respondents participate in the CHMS every year. During that time, the survey collects data and biospecimens from 8 different sites (for a duration of 6 weeks each). Only one Mobile Examination Center (MEC) is used at a time and the same teams travel from one site to another. The CHMS then collaborates with external laboratories across Canada to analyse and store the samples collected.

For respondent visits to its mobile examination center, the CHMS is currently using an application that was developed in-house. At this time, the CHMS is performing a redesign of all its applications and seeking ways to improve its processes, which includes the management of biospecimen collection.

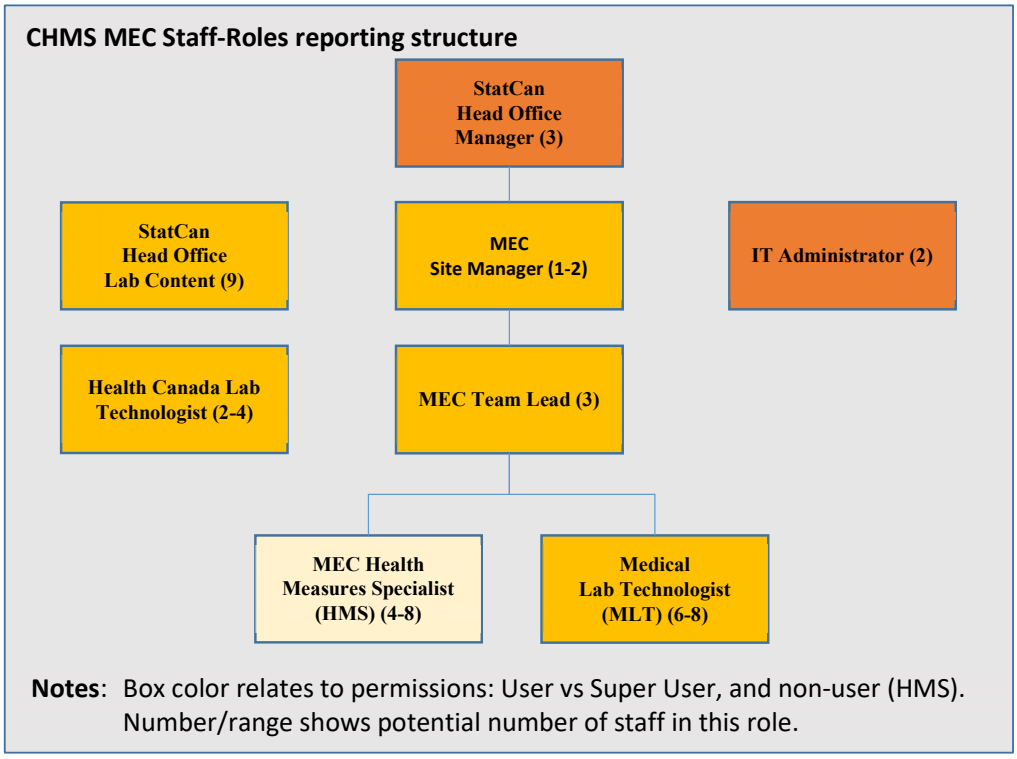
The MEC is run by 2 teams of around 8 employees that alternate shifts (MEC collection runs from early morning to late evening).

The following short video gives a tour of the inside of the MEC: https://youtu.be/z7w0avNMUtk

The layout of the MEC can be found in **APPENDIX A** (Layout of the Production MEC).

3 People involved in the MEC operations

This section describes the different levels of people involved in and around the MEC operation, and their reporting structure.



Roles	Description
StatCan Head Office Manager	The person responsible for managing the collection site, including configuring new sites, updating reference tables, extracting results, producing/printing reports, modifying report templates, etc. This is a Super User. There are a few people at StatCan Head Office that can fulfill that role.
StatCan Head Office Lab Content	The person responsible for providing support to the MEC team and ensure data quality by performing regular analysis of the data collected in the MEC and identifying and resolving any collection issues that could impact the quality of the data. Also participates in the lab content work in order to finalize lab content for upcoming cycles and identify health priorities for future cycles. The HO Lab Content can also play the role of MLT when necessary; backup to fill-in in MLT's absence.

Roles	Description
MEC Site Manager	The person responsible for proper MEC operation in general. There are 2 MEC Site Managers alternating. The Site Manager is responsible for all work shifts (early day, late day, weekday or weekend).
MEC Team Leader	The person who oversees the teams (HMS and MLT) during the collection process, insuring timeliness and quality of the operations. Can also perform collection procedures when required (staff replacement, etc.). There are 3 MEC Team Leaders.
MEC Health Measures Specialist (HMS)	The person responsible for greeting and guiding the respondents through the MEC process. The HMS obtains consent from the respondents, records a given respondents information, and takes physical health measures. The HMS obtains urine samples from the respondent, records its delivery in the CHMS Collection application, and delivers the sample to the MEC lab. The HMS does not use the LIMS; information they collect is transferred between the CHMS Collection application and the LIMS. There are 2 teams of 2 to 4 Health Measure Specialists who cover early and late day shifts, and weekends.
MEC Medical Lab Technologist (MLT)	The person responsible for managing the samples (collect, register, aliquot, store, ship, track, etc.) with the help of the LIMS. The MLT is responsible for Phlebotomy and collecting saliva from the respondent. There are generally 2 teams of 3 MLTs to cover early and late day shifts, and weekends.
Health Canada Lab Technologist	The person responsible for receiving the samples shipped to the Health Canada lab, acknowledging reception of the samples in the StatCan LIMS, running tests, and sending the test results to StatCan (exporting the test results from the Health Canada LIMS and sending them to StatCan).
IT Administrator	The person responsible for software configuration and maintenance. This is a Super User.

4 Description of a typical appointment flow

A graphic representation of the appointment flow can be found in "**APPENDIX B** – CHMS MEC visit sequence diagram". Additional information can be found in "**APPENDIX F** – Reference Tables" and "**APPENDIX G** – Selection of specimen and tests".

1. The respondent's basic profile information (age, sex, medical conditions, health habits, consent, etc.) is captured using a custom survey collection application.
2. Key data collected from the survey application informs the LIMS' downstream biosampling collection. Based on the information received from the survey application, the LIMS (requires Application Programming Interface call(s)) creates the respondent profile and outlines the biosampling procedure for the technologist to follow.

3. Biospecimens are collected at different times during the administration of the respondent interview. Based on the data collected in the custom survey collection application, LIMS informs the technologist of the type of biospecimen and volume required to be collected.
    a) Non-Blood biospecimens (urine, saliva, etc.)
        i. collected during the respondent interview using the survey application;
        ii. volume of biospecimen collected is registered in the survey application and is transferred to the LIMS;
    b) Blood samples
        i. collected directly using the LIMS;
        ii. volume of blood to be collected by technologist is defined by the respondent profiles stored in the LIMS;
        iii. the LIMS informs the custom survey application regarding the blood collection status (i.e. Outcome code; complete, partial, etc.).
4. The LIMS registers the time and prints barcode label(s) for the biospecimens collected.
5. The LIMS interacts with the barcode reader (1D), flatbed tray scanner (2D), and barcode printer to ease the technologist's task of tracking samples through the workflow.
6. The LIMS determines the tests required for each biospecimen (based on respondent profile information against reference tables and random selection)
    a) The LIMS guides the technologist into the aliquoting of the sample for the selected tests and storage conditions.
7. Tubes of aliquoted or processed samples are tracked and stored by their associated test in the Mobile Examination Centre's fridges/freezers.
8. The LIMS tracks the transitory biospecimen inventory between the Mobile Examination Centre and the External Reference Laboratories.
    a) Using reference tables and sample barcodes, the LIMS prevents biospecimen shipments from being sent to the wrong labs;
    b) External Reference Laboratories provides information on the status of the biospecimen shipments and reports pending test results back into the LIMS.

5 Description of a typical Lab flow

A graphic representation of the appointment lab can be found in "**APPENDIX D** − Lab Task Workflow". Additional information can be found in "**APPENDIX F** − Reference Tables" and "**APPENDIX G** − Selection of specimen and tests".

1. During the MEC Appointment (as described in "
2. Description of a typical appointment flow" in the section above):
    a) The LIMS facilitates the collection of blood, urine and saliva samples by accessing loaded respondent profiles and Lookup tables that outlines the biospecimen's minimum volume requirements for each test requested;
    b) the LIMS decides the appropriate Vacutainer tubes, sizes, cap color, volume of blood to draw as well as saliva and urine to be collected based on respondent profile and Lookup tables;
    c) The LIMS prints labels based on the volume and type of biospecimen the technologist collected during the interview.
3. During the Laboratory Processing of the samples collected during the MEC Appointment:
    a) The LIMS decides the appropriate aliquots for each matrix (serum, whole blood, plasma, urine, and saliva) based on the respondent profile and Lookup tables;
    b) The LIMS guides the technologist through aliquoting of the different matrices of specimens (showing optimum and minimum volumes, priority, etc.) and prints the required labels.
4. During tracking and shipment of samples:
    a) The aliquoted samples are tracked and stored according to TestID and External Reference lab in fridges or freezers;
    b) On shipment days to External Reference Labs, the samples are removed from the fridges/freezers and tracked in LIMS;
    c) The External Reference lab confirms in LIMS receipt of shipped samples.

6 CHMS Operational Requirements

6.1 Overview

The CHMS needs a Solution able to determine the types of collection tubes and the sample volumes for each respondent based on the respondent's profile (e.g. age, sex, consent etc.). The collected blood and urine samples are then aliquoted into smaller tubes for further testing. Samples are sent to laboratories across Canada for analysis and storage. All the operations are overseen at the Statistics Canada Head Office located in Ottawa, Ontario.

The Solution must have the ability to use reference tables to determine the required tests and prioritize them (in cases where the sample collected does not have the required volume), for each respondent based on the respondent's profile and other variables (refer to **APPENDIX B**, **C**, **D**, **F** & **G** for details on workflow). Some tests are chosen for all respondents, while other tests are randomly chosen from the eligible respondents based on the predetermined probability weights set on the sample file, imported into the application. The sample file contains information on each respondent (respondent profile) such as the name, respondent ID, age, sex, requirement for fasting, smoker/non-smoker, consent for DNA blood and urine, conditions for screen outs, etc. This file is prepared prior to the start of a site.

The Solution must have the ability to guide the MLTs through the workflow (refer to **APPENDIX B**, **C**, **D**, **F** & **G** for detail on workflow) by displaying the type of tubes to be filled for each step and must record the respondent information and the collected sample tubes information, so that the results can be linked back to the respondent.

The Solution must offer complete sample management throughout its life cycle. This includes, but is not limited to, the following steps: collect and register samples, provide barcodes, aliquot samples, store samples, track locations, review data, generate reports, perform data query, and archive data.

The Solution must also offer functionalities related to the equipment maintenance. This includes, but is not limited to, the following steps: configure and receive automated notification for scheduling of equipment maintenance, store instrument calibration records or other related documents, and track instrument locations as well as inventory.

6.2 Solution Required User Licenses

The Solution's initial contract must provide Perpetual User Licenses; Estimated number of licenses required listed in the tables below.

The Solution must provide licenses for 4 different environments: Dev, Test, QA and Prod.

The Production and QA environments require the use of user roles, while Dev and Test don't require user roles.

In order to allow CHMS to possibility run both MECs simultaneously in the future, the Solution must allow the option to purchase additional Perpetual User Licenses as per the tables below.

Production environment - Estimated number of Perpetual User Licenses:

User type	User Role	Initial Contract Quantity	Optional Quantity
User	StatCan Head Office Lab Content	9	2
	MEC Site Manager	2	2
	MEC Team Leader	3	3
	MEC Medical Lab Technologist (MLT)	8	8
	Health Canada Lab Technologist	2	2
Super User	StatCan Head Office Managers	3	2
	IT Administrator	2	1

QA environment - Estimated number of Perpetual User Licenses:

User type	User Role	Initial Contract Quantity	Optional Quantity
User	StatCan Head Office Lab Content	9	2
	MEC Site Manager	2	2
	MEC Team Leader	3	3
	MEC Medical Lab Technologist (MLT)	9	3
	Health Canada Lab Technologist	2	2
Super User	StatCan Head Office Managers	3	2
	IT Administrator	2	1

Test environment – Estimated number of Perpetual User Floating Licenses:

User Role	Initial Contract Quantity	Optional Quantity
Developers	4	1
User Acceptance Testers	9	3

Dev environment – Estimated number of Perpetual User Licenses:

User Role	Initial Contract Quantity	Optional Quantity
Developers	4	1

6.3 Solution functionalities required

The Solution must provide the following functionalities:

1. Must have the ability to set up specific workflows (tubes to fill and amount of blood to be drawn). Following the setup of the workflows, the Solution must guide the MLT for every step of the collection;
2. Must have the ability to implement validation and reference tables to facilitate the data entry process and to ensure the consistency, integrity, and standardization of the data;
3. Must have the ability to provide Application Programming Interface (API) for integration with other applications, allowing for the creation of a respondent's profile, registering biospecimen tracking info data, and allowing data queries;
4. Must have the ability to record the respondent's information and the collected sample tubes information, so that the results can be linked back to the respondent;
5. Must have the ability to create barcode labels for biospecimen collection tubes, containers, or equipment, and to communicate with a printer to print the barcodes;
6. Must have the ability to scan barcodes (1D and 2D) in order to track the samples and equipment or search the data from any sample collected and sort the search results by any field of the search criteria;
7. Must have the ability to display the respondent's profile upon scanning the ClinicID barcode;
8. Must have the ability to display notes and instructions during workflow dependent on previously collected respondent data (for example: history of vasovagal attacks (feeling dizzy, fainting, etc.);
9. Must have the ability to verify that samples were collected (i.e. aliquot) for the selected tests, and force the user to record the aliquot or to specify the reason if not collected;
10. Must have the ability to allow multiple tests to be added to one sample. When a sub sample is created; the Solution must allow the sub sample to retain the original continuity of evidence of the parent sample up to the point when the sample was aliquoted;
11. Must have the ability to track the location, through time, of the lab equipment and every sample from the time the sample is collected until it is destroyed or stored in the biobank (further referenced as Chain of Custody). This includes, but is not limited to tracking of the specific location of the sample or the equipment within the laboratory. For example: room, cabinet, refrigerator, freezer, etc. The Solution must also have the ability to generate, export, and print reports of this data;
12. Must have the ability to record information, for all Laboratory Users who access the system. If data has been added and/or updated in any of the data fields such as data field name, current and updated data, User Identification, and date and time (further referenced as Audit Trail). The Solution must also have the ability to generate, export, and print reports of this data;
13. Must have the ability to conduct queries and produce reports on the variables collected;
14. Must have the ability to interact with other LIMS (used in External Reference Labs) to exchange shipment information using HL7 standard data exchange;

15. Must have the ability to load shipment tracking and test results sent from External Reference Labs as custom .csv files;
16. Must have the ability to create different user roles or groups, control the platform capabilities, and restrict information available, based on those roles or groups;
17. Must have the ability to provide full user interfaces in both of Canada's official languages (French and English)

7 Base Solution Delivery

7.1 Scope of Work

The Base Solution Delivery includes work and services as set out in this section "**7** – Base Solution Delivery", including but not limited to "**7.2** – Initial Solution Implementation" and its deliverables (as per section "**7.3** – Delivery Table") and the initial User Training (as per section "**7.5** – Training - Initial User Training Requirements").

The milestone schedule for Base Solution Delivery is listed in the section "**7.3** – Delivery Table".

7.2 Initial Solution Implementation

The Initial Solution Implementation is to be completed within 6 month of Contract award (as per "**7.3** – Delivery Table").

The Initial Solution Implementation consists of installing, customising and configurating the Bidder's COTS's solution into the Client's cloud environment pursuant to the requirements stated in **APPENDIX I**.

The Contractor will not have access to StatCan IT platform; StatCan employees will install and configure the Solution based on Contractor's instructions and guidance.

There will be no data migration from the old CHMS system; although configuration data will need to be loaded.

The Contractor's responsibilities related to the Initial Solution Implementation may include but are not limited to:

a) Configuring the Solution in a container (as per section **10.1** – IT Platforms) or providing the scripts and instructions for StatCan IT to install and configure the Solution;

b) Providing installation & configuration instructions to StatCan as well as assisting with operational start-up;

c) Providing design and architecture documentation describing the Solution components and their interactions (equipment, networking, component assembly, etc.);

d) Producing documentation on the Solution Implementation that is specifics to StatCan (customisation, component assembly, etc.) and its operation.

Contractor's resource(s) must have relevant professional experience (a minimum of 2 years experience) in implementing, configuring and customizing the COTS Solution with diverse clients.

The Contractor must provide the list of the intended resources in the Implementation Plan, for Canada's approval.

Once the Initial Solution Implementation is accepted by Canada in accordance with "**8** – Acceptance Procedure", additional implementation changes other than the Initial Solution Implementation, will be executed through the Task Authorization Process as defined in section "**9** – Post Implementation Professional Services as Required (Task Authorization)".

7.3 Delivery Table

Unless otherwise agreed, the Contractor must follow the chronological order of the tasks listed in the following table:

No.	Tasks / Activities / Deliverables	Deliverable	Delivery Schedule (a)	Review Meeting Schedule (b)	Approval by Canada schedule (c)	Payment milestone
1	**Initial kick-off meeting**	The Contractor must organise and schedule a meeting with the StatCan team in order to initiate the work.	Within 7 days of contract award - unless otherwise agreed by the technical authority.	N/A	N/A	
2	**Scope Study**	The Contractor must conduct a full Scope Study. The Scope Study will be conducted in collaboration with the Solution Configuration Specialist and StatCan using mediums such as videoconference, email, etc. The Contractor must organise and schedule a meeting with the StatCan team to review the Scope Study for approval.	Within 14 days of contract award - unless otherwise agreed by the technical authority.	Within 7 days of delivery - unless otherwise agreed.	Within 7 days of review - unless otherwise agreed.	
3	**Technological Blueprint**	The Contractor must provide a Technological Blueprint (using diagrams and written descriptions) showing the mapping between the Solution components and the underlying technology. The Contractor must organise and schedule a meeting with the StatCan team to review the Technological Blueprint for approval.	Within 30 days of contract award - unless otherwise agreed by the technical authority.	Within 7 days of delivery - unless otherwise agreed.	Within 7 days of review - unless otherwise agreed.	

No.	Tasks / Activities / Deliverables	Deliverable	Delivery Schedule (a)	Review Meeting Schedule (b)	Approval by Canada schedule (c)	Payment milestone
4	**Implementation Plan**	The Contractor must provide an implementation plan as per the requirements identified in the Statement of Requirements. The Contractor must organise and schedule a meeting with the StatCan team to review the Implementation Plan for approval. See section "**7.4** – Project Implementation Plan".	Within 30 days of contract award - unless otherwise agreed by the technical authority.	Within 7 days of delivery - unless otherwise agreed.	Within 7 days of review - unless otherwise agreed.	15% upon approval (item 4(c)) Item #1 to 4 must be completed for this milestone payment.
5	**Training Plan**	The Contractor must provide a Training Plan as per the requirements identified in the Statement of Requirements. The Contractor must organise and schedule a meeting with the StatCan team to review the Training Plan for approval. The Training Plan must include, for each course: course name, description, prerequisite(s), audience, duration and medium used. See section "**7.5** – Training - Initial User Training Requirements".	Within 30 days of contract award - unless otherwise agreed by the technical authority.	Within 7 days of delivery - unless otherwise agreed.	Within 7 days of review - unless otherwise agreed.	

No.	Tasks / Activities / Deliverables	Deliverable	Delivery Schedule (a)	Review Meeting Schedule (b)	Approval by Canada schedule (c)	Payment milestone
6	**Customization of the Solution as per StatCan requirements**	The Contractor must provide complete customisation of the Solution, in order to meet RFP requirements, and based on the results of the performed Scope Study. Any customisation required are to be included in the implementation cost provided in the RFP submission. **Note**: Subject to Final User Acceptance after final Implementation Delivery.	Within 6 months of contract award - unless otherwise agreed by the technical authority.	N/A	N/A	
7	**Documentation of the customization**	The Contractor must provide complete documentation (including User Manual & Training Material) explaining the customization performed on the initial Solution in order to be compliant with all StatCan requirements. Documentation must be submitted in PDF format. **Note**: Subject to Final User Acceptance after final Implementation Delivery.	Within 6 months of contract award - unless otherwise agreed by the technical authority.	N/A	N/A	

No.	Tasks / Activities / Deliverables	Deliverable	Delivery Schedule (a)	Review Meeting Schedule (b)	Approval by Canada schedule (c)	Payment milestone
8	First software implementation delivery	Delivery of the implemented Solution as per the requirements identified in the Statement of Requirements. The Solution Delivery can be incremental until the complete Solution delivery. **Note**: Subject to Final User Acceptance after final Implementation Delivery.	Within 6 months of contract award - unless otherwise agreed by the technical authority. **Note**: Final Software Implementation Delivery must be done within 6 months of contract award, unless otherwise agreed.	N/A	N/A **Note**: Might be subject to item 9, Final User Acceptance.	25% Item #1 to 8 must be completed for this milestone payment.
9	Final User Acceptance	Canada will evaluate the provided Solution implementation as described in section "**8** – Acceptance Procedure" of the SOR.	Canada will provide results of its tests and evaluation within 3 weeks[1] of the Solution implementation delivery and successful installation and operation in StatCan Cloud environment. As per SOR Section "**8** – Acceptance Procedure", Canada can either accept or reject the provided implementation.	N/A	N/A	50% Item #1 to 9 must be completed for this milestone payment.

[1] 3 weeks does not include the time for StatCan to install and configure the Solution in its computing environment. Installation and configuration delay will vary from a single software delivery compare to an incremental delivery where procedures already exist.

No.	Tasks / Activities / Deliverables	Deliverable	Delivery Schedule (a)	Review Meeting Schedule (b)	Approval by Canada schedule (c)	Payment milestone
10	Training sessions	The Contractor must provide training as described in section "**7.5** – Training - Initial User Training Requirements" of the SOR.	To be delivered following "Final User Acceptance" and completed within 2 months following "Final User Acceptance" or within 6 months following contract award - unless otherwise agreed by the technical authority.	N/A	N/A	10% upon completion Item #1 to 10 must be completed for this milestone payment.

7.4 Project Implementation Plan

Finalization of the Project Implementation Plan must be completed by the Bidder within 30 working days of the Contract being awarded. Following the delivery of the Project Implementation Plan, the Bidder must organise a meeting with StatCan to discuss the implementation of the Solution within 7 days.

The Project Implementation Plan must include, but is not limited to:

7.4.1 Project Overview:

a) Purpose, Scope and Objectives;

b) Assumptions, Constraints and Dependencies;

c) Deliverables highlighting key milestones.

7.4.2 Solution Design:

a) Proposed Application Architecture (conceptual view) showing components and the way in which components will interact with StatCan systems and databases.

7.4.3 Implementation Activities:

Description and information on the major system implementation activities, including the following:

a) Resources required to accomplish the activity (key person(s) responsible for the activity);

b) Proposed approach for installation and configuration of base software;

c) Proposed approach for performance testing and system acceptance testing for the base software;

d) Criteria for successful completion of the activity (e.g., "user acceptance").

7.4.4 Prerequisites requirements:

a) Provide a list of prerequisites for installing and testing;

b) Provide a list of software components for example: software, databases, compilers, operating systems, etc.

7.4.5 System Configuration:

a) Proposed approach for performing a gap analysis on requirements and developing a plan to fill the gaps (to configure data fields, tests, report templates, inventory, etc.);

b) Proposed approach for loading data (reference file, lookup tables, etc.) from the existing StatCan data sources to the Solution.

7.4.6 Implementation Schedule:

a) Proposed schedule for completion of all activities to implement the new Solution;

b) Proposed method to provide updates to StatCan on the progress of the implementation in relation to the initial plan.

7.4.7 Risk Management Log:

a) Identify foreseen risks, estimated impacts, and define risk response.

7.4.8 Project Closeout Plan:

a) Proposed approach for closing the project after complete implementation of the Solution and conducting a knowledge transfer to StatCan staff.

7.5 Training - Initial User Training Requirements

The Bidder must provide training on the software Solution in accordance with the requirements found in this document, such as:

a) The training must be role oriented and must include relevant information on the Solution components, configuration, operation, and maintenance;

b) Initial training sessions must be delivered within 3 weeks, or as agreed by the Bidder and StatCan, following the "**Final User Acceptance**" of final implementation (as per "**7.3** – Delivery Table" item #9 & #10);

c) The Bidder must provide electronic documentation, all presentations, and related reference documents used for training in English. If available, the Bidder must also provide the French version of the documents. StatCan reserves the right to translate the training material to French;

d) At least 10 working days in advance of the first training session, the Bidder must submit the course syllabus and schedule, an electronic copy of all the training materials, and the names and qualifications of the instructors to the Technical Authority for approval;

e) The training must take place via web conference;

f) The training must take place during normal business hours (between 8:00 am and 4:00 pm, Canada Eastern Time);

g) The training material must reflect StatCan's environment and operational requirements.

Initial training will only be required for the initial users of the Solution, of which the associated cost must be included in the Implementation cost to be provided in the RFP submission.

A minimum of 15 hours of training must be provided by the Bidder. The training will be partitioned in a generic training, allowing every type of user to gain basic knowledge of the platform, and role or type specific trainings, allow specific type of user to learn the specific functionalities pertaining to their role.

The detail of the training schedule and material (i.e. PPT, PDF, etc.) must be explained in the Training Plan as outlined in the section "**7.3** – Delivery Table".

Here is an estimate number of users, per role, for which training will be required following the Solution implementation:

User Role	Estimated Number of Users
StatCan Head Office Managers	3
StatCan Head Office Lab Content	9
MEC Site Manager	2
MEC Team Leader	3
MEC Medical Lab Technologist (MLT)	8
Health Canada Lab Technologist	2
IT Administrator	2

8 Acceptance Procedure

All reports, deliverables items, documents, goods and all services rendered under the Contract, including the list deliverables as set out in the section "**7.3** – Delivery Table" under Statement of Requirements are subject to inspection by the Technical Authority or representative. Should any report, document, deliverables, good or service not be in accordance with the requirements of the Statement of Requirements or Task Authorization and to the satisfaction of the Technical Authority, as submitted, the Technical Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

All the work and professional services to be performed by the bidder are subject to inspection and acceptance by Canada. Inspection and acceptance by Canada do not relieve the Contractor of its responsibility for defects or other failures to meet the requirements of the Contract. Canada will have the right to reject any work that is not in accordance with the requirements of the Contract and require its correction at the Bidder's expense.

9 Post Implementation Professional Services as Required (Task Authorization)

After acceptance by Canada in accordance with "**8** – Acceptance Procedure", additional implementation changes other than the Initial Solution Implementation may be executed through the Task Authorization Process as defined below and in accordance with the contract clauses pertaining to Task Authorizations.

Post implementation customisation might be required to fulfill future needs by Canada.

If such Task Authorization (TA) is requested by Canada, Bidder will suggest the appropriate resource in light of Work required and defined in the TA SoW, for Canada's approval.

Bidder's proposed resource(s) must have relevant professional experience (a minimum of 2 years experience) in configuring and customizing the COTS Solution with diverse clients.

The Work associated with the Task Authorizations is subject to section "**8** – Acceptance Procedure".

10 Department Computing Environment

10.1 IT Platforms

StatCan is moving most of its computing systems to Government of Canada's (GC) approved public Cloud Service Providers (CSP). By the time this Solution will be implemented, most of StatCan computing platforms will be hosted on public cloud.

StatCan has committed to a container-based Docker application infrastructure for cloud-native and micro services applications. All new StatCan internal development must use .Net CORE automated through Continuous Integration & Deployment (CI/CD), while the container deployment and management are executed by Kubernetes.

The StatCan container OS of choice is LINUX (mostly Alpine, Ubuntu otherwise), while a Windows container is reserved for exceptional cases (mainly legacy apps/tech) and **externally purchased software (COTS)**.

StatCan will continue to use Virtual Machine (LINUX and Windows) for the foreseeable future, but only to provide a home for legacy applications and **externally purchased software (COTS)**.

StatCan default Database Management System (DBMS) is now SQL Server 2019. MySQL and Postgress are being used for some exceptional specific use cases, while Oracle DB will only be used to support legacy applications and **externally purchased software (COTS)**. StatCan goal is to reduce the number of DBMS used overtime, but exceptions will likely always exist.

Once all StatCan applications/systems are hosted on the cloud, most of StatCan DBMS will be on a Platform as a Service (PaaS) model and most data will require to be encrypted as part of the DBMS service offering.

10.2 Workstation Environment

StatCan's workstation environment is based on Windows 10 Operating Systems secured by HP Sure Click Enterprise (Bromium Security Platform) version 4.2 or higher.

StatCan's main Web browsers are MS Edge (version 99 or newer) and HP Sure Click Secure Browser (Chromium) version 88 or newer. StatCan also make use of Firefox (version 98 or newer), Chrome (Version 99 or newer), Opera (version 83 or newer) and Internet Explorer 11.x in parsimony. All Web Browsers are secured by HP Secure Click.

10.3 Directory Services

StatCan directory services is based on Microsoft Active Directory (MS-AD), including Microsoft Azure Active Directory (MS-AAD). In order to avoid infrastructure dependencies, StatCan is increasingly implementing its Authentication and Authorization on the OpenID connect / Oauth 2.0 standards.

10.4 Security Policies

a) Users' authentication and authorization must be done using the central directory services.

b) Users' sessions must be locked after 10 minutes of inactivity (requiring the user to authenticate again).

c) All network communication must be encrypted using Transport Layer Security (TLS) or an equivalent/better protocol.

10.5 Office Suite

Statistics Canada is currently using Microsoft Office 365 Suite (Word, Excel and Outlook) and the Government of Canada Document Management System (GCDOCS, an implementation of OpenText Content Server).

11 CHMS Networks Environment

StatCan Cloud make uses of 4 different mandatory environments; Development (Dev), Test, Quality Assurance (QA) and Production (Prod).

- Dev & Test environments are to be used by IT staff to implement the IT systems,
- QA allows client to test that requirements were properly implemented and to execute the user acceptance testing,
- Prod is the ultimate production environment.

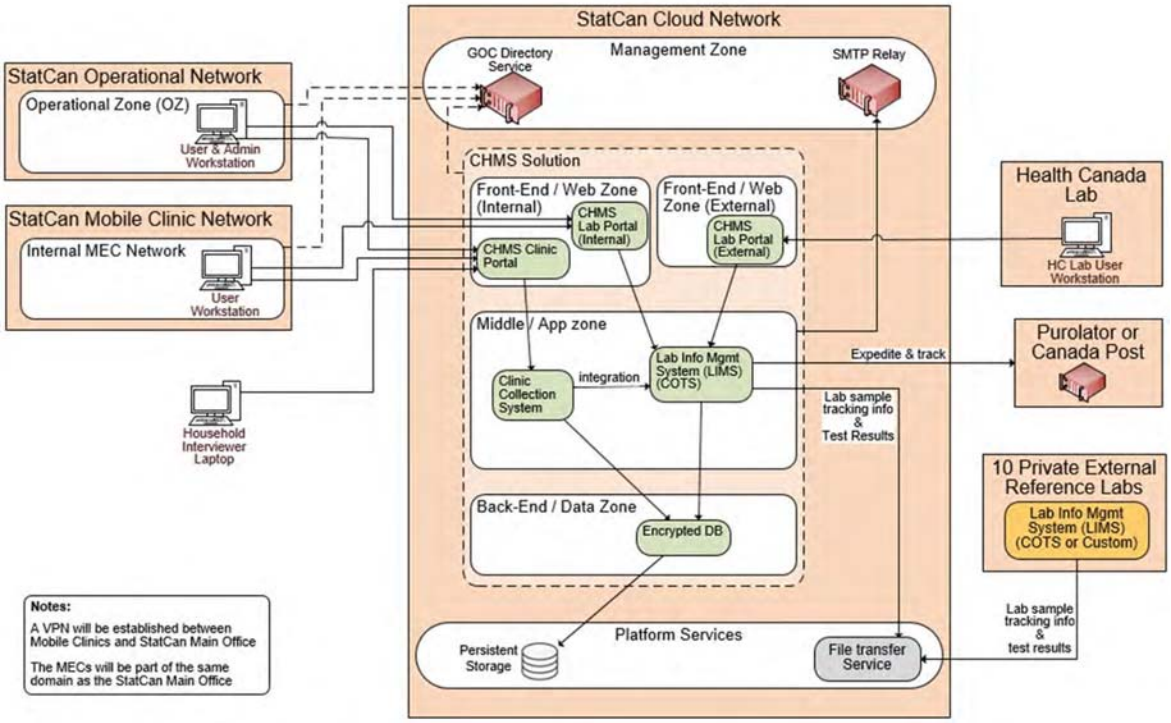
Dev & Test are minimal in size (can vary depending of project), while QA & Prod are to be equivalent to each other in size and controls in order to allow for QA to be used for performance testing and to be replicated and analysed Production issues.

The CHMS Solution will be hosted on the StatCan Cloud. Its systems' web interface will be exposed internally for StatCan Main office & MEC Staff and externally for the Health Canada lab to access (as depicted in the diagram below). For security reasons, the internal and the external Web Front-End will be hosted separately (see diagram).

The SMTP server requires user Authentication (No Anonymous connection allowed).

All communications must be secured by a Transport Layer Security (TLS) or an equivalent/better protocol.

Figure 1: Abstract of the CHMS System Interconnection



12 Contract duration

As defined in contract.

It is Canada's intention to continue to use the Solution for as long as it makes business sense to do so, and the duration of any given contractual arrangement is not intended to reflect the duration of the use of the solution.

13 Location of Work

All work will be done at the Bidder's premises. StatCan will install the provided Solution components on its network. Meetings and training sessions will be provided by videoconference.

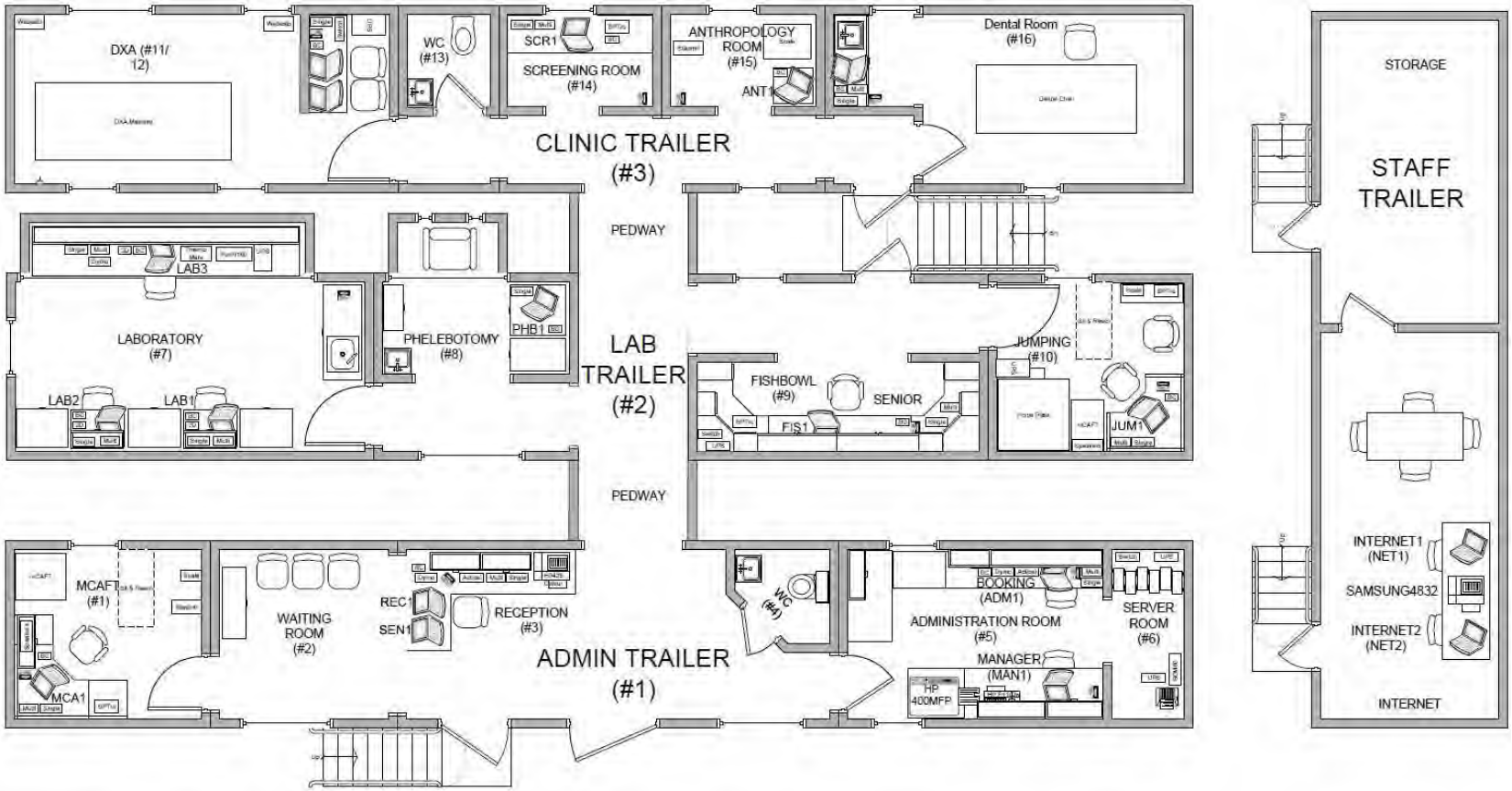
14 Language

The language of correspondence and documents will be English or French.

StatCan reserves the right to translate, as required, any material provided (implementation documents or Solution documentation) in either French or English, in order to fulfil its requirement for French and English documentation.

APPENDIX A Layout of the Production MEC

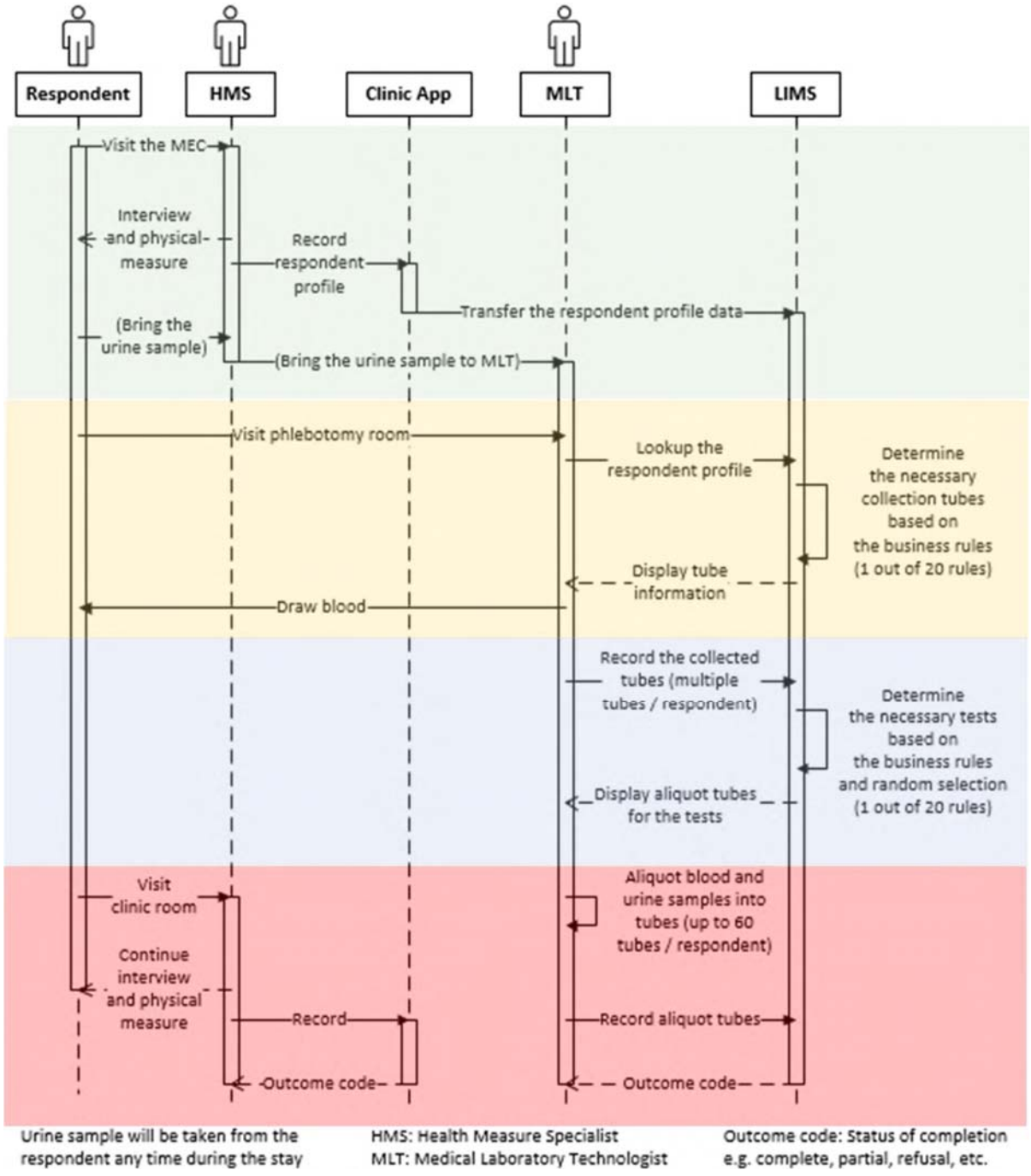
This represents the current layout of a Mobile Examination Center (MEC) when installed at a site. The MEC is comprised of 3 x 53’ long trailers which are interconnected. A fourth trailer is used as storage and a meeting place for the MEC staff.



APPENDIX B CHMS MEC visit sequence diagram

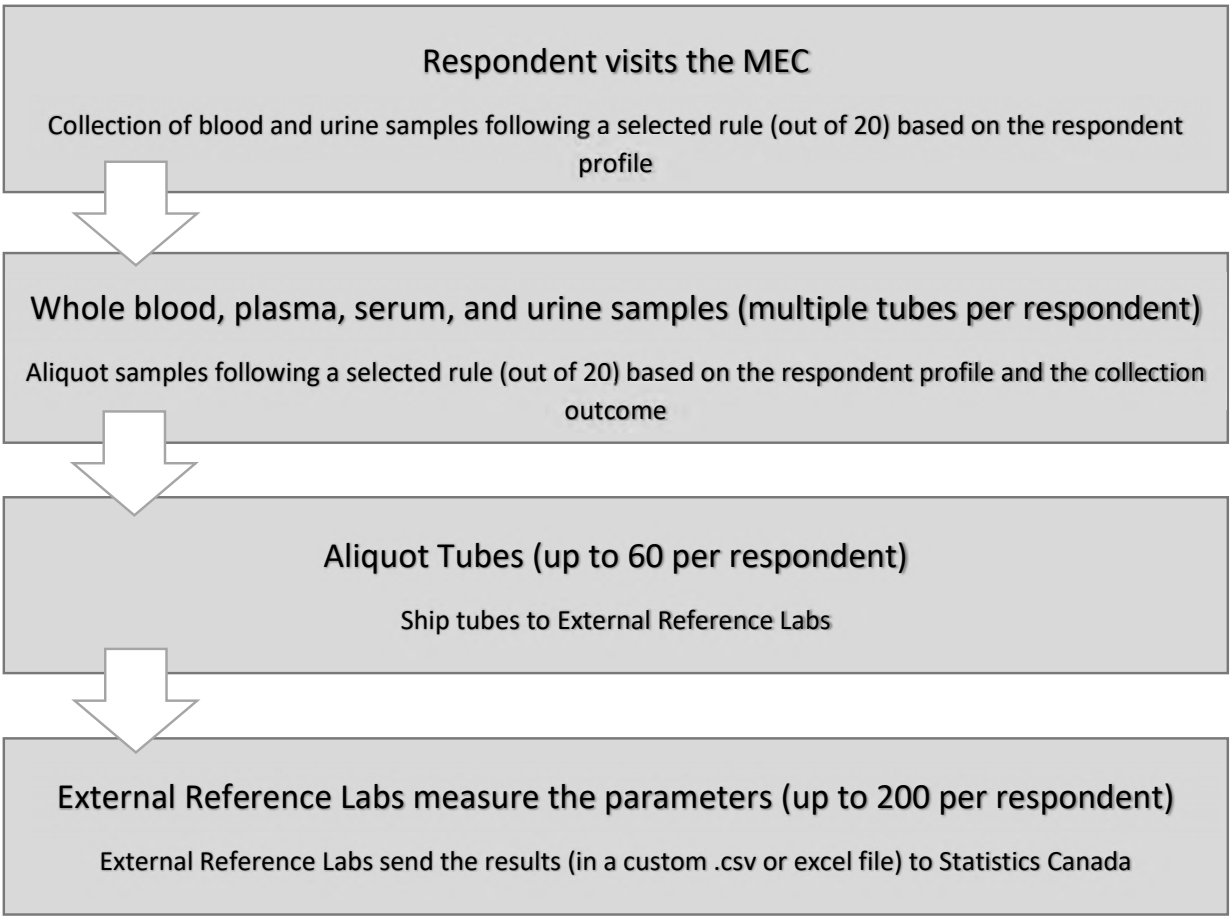
This sequence diagram explains the stages of a respondent's visit at the MEC, as well as the required actions from the staff. For a written description, please refer to section "**4** –

Description of a typical appointment flow".


Respondent
HMS
Clinic App
MLT
LIMS
Visit the MEC
Interview and physical measure
Record respondent profile
Transfer the respondent profile data
(Bring the urine sample)
(Bring the urine sample to MLT)
Visit phlebotomy room
Lookup the respondent profile
Determine the necessary collection tubes based on the business rules (1 out of 20 rules)
Display tube information
Draw blood
Record the collected tubes (multiple tubes / respondent)
Determine the necessary tests based on the business rules and random selection (1 out of 20 rules)
Display aliquot tubes for the tests
Visit clinic room
Aliquot blood and urine samples into tubes (up to 60 tubes / respondent)
Continue interview and physical measure
Record
Record aliquot tubes
Outcome code
Outcome code
Urine sample will be taken from the respondent any time during the stay
HMS: Health Measure Specialist
MLT: Medical Laboratory Technologist
Outcome code: Status of completion e.g. complete, partial, refusal, etc.

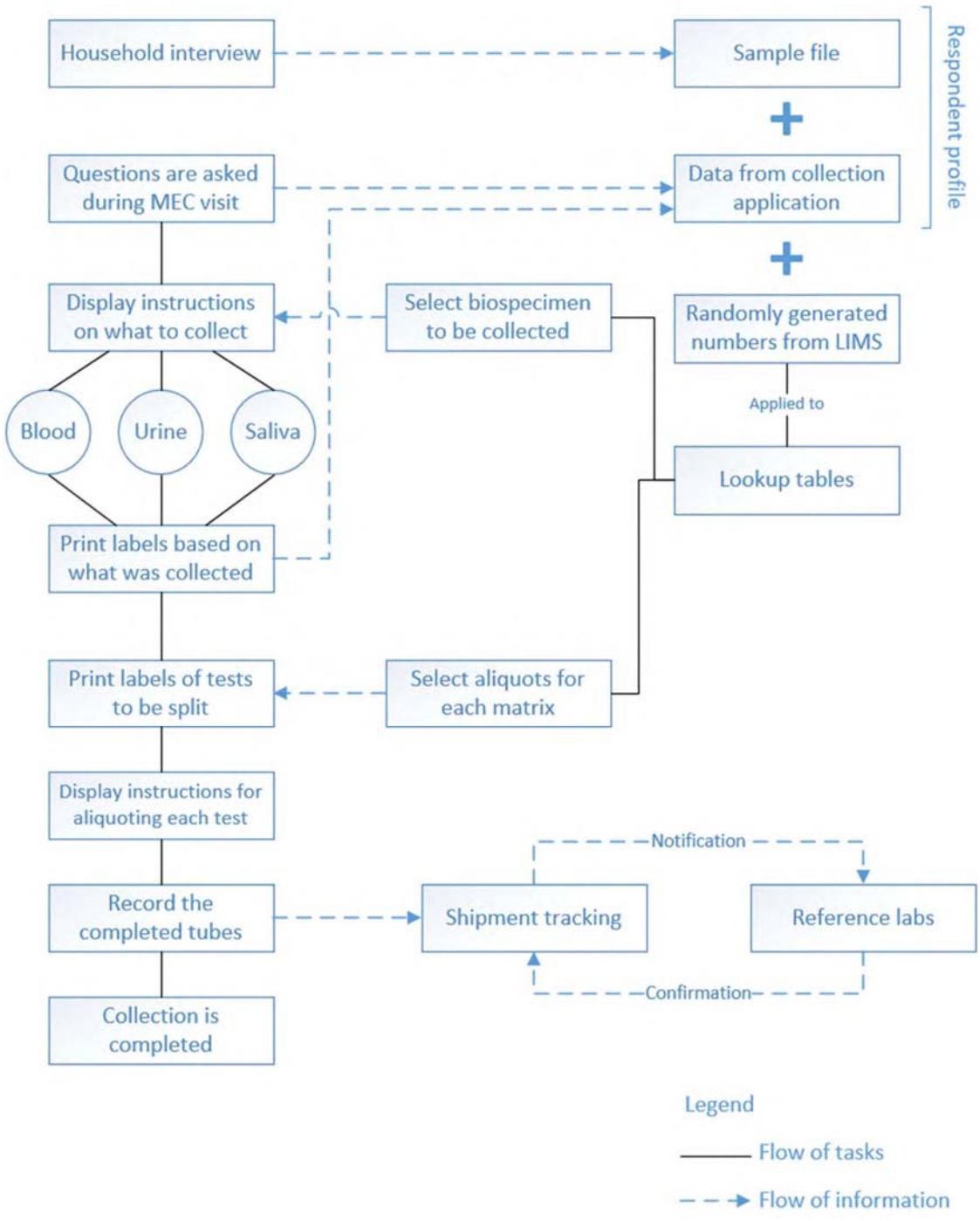
APPENDIX C Sample Collection Steps

This diagram explains the steps required for sample collection during a respondent visit at the MEC.



APPENDIX D Lab Task Workflow

This diagram explains the intended flow of tasks as well as the dependency on data for each respondent's visit to the MEC.
For textual description, please refer to section "**5** − Description of a typical Lab flow"



APPENDIX E List of Laboratory Equipment and Instruments

This is a list of the Laboratory Equipment and Instruments the LIMS must interface with, their specific instrument software (where is applicable), and their Resulting File Format (where applicable).

Equipment & Instrument	Instrument Software	Resulting File Format
1D scanner	N/A (regular keyboard emulation)	*N/A*
2D tray scanner	Tracxer Code Reader	.txt or .csv
PocHi	Sysmex	.txt or .csv Connect: Serial Format: K-1000 Transfer Rate: 2400 bps Data Length: 7 bits Stop Bit: 2 bits Protocol: Class A Transfer Interval: 2 s
Dymo Label Writer	DYMO Label	*N/A*
Zebra Printer	Zebra Driver	*N/A*

APPENDIX F Reference Tables

Tube information: For workflow, e.g. 'scan the whole blood Lavender cap 2.0mL cryotube'. The tube type determines the method of scanning, e.g. a 2D tube is scanned differently compared to a cryotube. The tube_id can be used to print labels (tube_id identifies what specific test or test panel for the tube, together with the ClinicID identifies a specific tube for a specific respondent).

tube_id	tube_type	tube_size_E	tube_size_F	cap_colour	tube_description_E	tube_description_F
tube_011	Cryotube	2.0 mL	2,0 mL	Lavender	whole blood	sang entier
tube_030	2D	1.4 mL	1,4 mL	Orange	whole blood	sang entier
tube_050	2D	0.75 mL	0,75 mL	White	plasma	plasma
tube_051	2D	0.75 mL	0,75 mL	Green	plasma	plasma
tube_060	2D	0.75 mL	0,75 mL	Blue	serum	sérum

Collection information (this also includes priority)

specimen_id	specimen_type	collection_volume	specimen_description_E	specimen_description_F	priority
specimen_763	Urine	120	urine container	récipient d'urine	7.9
specimen_93	Urine	120	pooled urine container	récipient du pool d'urine	7.94
specimen_10	Serum	10	red (serum)	rouge (sérum)	5.5
specimen_11	Serum	6	red (serum)	rouge (sérum)	5.51
specimen_12	Serum	4	red (serum)	rouge (sérum)	5.52

Test information: The matrix is used to group tests together so that they can be split at the same step, e.g. when it's time to split plasma, look for all plasma tests and those will be listed together.

test_id	Matrix	Measure_E	Measure_F	Fasting	Priority
test_011	Whole Blood	Complete Blood Count (CBC)	Hémogramme	No	3.01
test_012	Urine	General characterization	Densité	No	
test_013	Water	Fluoride in water	Fluorure dans l'eau	No	
test_015	Water	Metals in water	Métaux dans l'eau	No	
test_030	Whole blood	Stored QC Whole blood 1	Échantillon de CQ Sang entier 1	Yes	3.06
test_050	Plasma	Stored QC Plasma 1	Échantillon de CQ Plasma 1	Yes	1.05
test_051	Plasma	Stored QC Plasma 2	Échantillon de CQ Plasma 2	Yes	1.06
test_060	Serum	Stored QC Serum 1	Échantillon de CQ Sérum 1	Yes	5.19

Tube instructions: These are other dynamic text. Currently there are no post splitting instructions

tube_id	Presplitting_E	Presplitting_F	Postsplitting_E	Postsplitting_F	Article_F
tube_99	Pool the serum vacutainers into bottle 99	Combinez le sérum des vacutainers dans la bouteille 99			
tube_512					de
tube_701					d'

NB: Article_F is used in our current application in order to allow for correct French grammar when displaying the French text instructions for splitting that is provided to the lab staff on the screen. Our instructions need to available in both French and English.

APPENDIX G Selection of specimen and tests

Please refer to section "**4** –

Description of a typical appointment flow" and "**5** – Description of a typical Lab flow" for workflow context.

The **specimen collection information** is decided based on the **respondent information**. The LIMS refers to information from the respondent profile in order to select specimen to collect and tubes to use for each respondent from the lookup table.

Since collection will vary between respondents, not all of these tubes will be filled. The priority column lists the tubes in increasing order so that the most important tubes are collected first. The main_alt_tube column is used to display the type of tube: main tube, sub tube or stand-alone tube. Based on the situation, the phlebotomist may decide to only use one main tube or use multiple sub tubes in order to collect the volume necessary. For example, specimen_10 can be collected with just main tube_10 or with sub tube_11 and/or sub tube_12. A stand-alone tube means that there is only one tube for the specimen.

Respondent information					Specimen collection information (ID, volume, priority)				
dryrun	**age_min**	**age_max**	**blood_storage**	**DNA_storage**	**specimen_id**	**tube_id**	**collection_vol**	**main_alt_tube**	**priority**
3	12	14	2	2	specimen_10	tube_10	10	main	5.5
3	12	14	2	2	specimen_10	tube_11	6	sub	5.51
3	12	14	2	2	specimen_10	tube_12	4	sub	5.52
3	12	14	2	2	specimen_20	tube_20	10	main	5.58
3	12	14	2	2	specimen_20	tube_21	6	sub	5.59
3	12	14	2	2	specimen_20	tube_22	4	sub	5.6
3	12	14	2	2	specimen_24	tube_24	2	stand	3.5

selected for dryrun = 3 (not dryrun), age = 12-14, blood_storage = 2 (No), and DNA_storage = 2 (No) – this is only an example of rows

The **test information** is decided based on **respondent information** and **subsampling rates**. The LIMS refers to information from the respondent profile, sample file and its own randomly generated numbers in order to determine the tests for which each respondent is eligible from the lookup table.

Some tests are selected for all respondents while others are only selected for a random subsample. The ss_rate_var represents a variable that is a randomly generated number from the LIMS that is compared against t_flag which is the subsample rate from the sample file. As an example, ARSC05 is the randomly generated number for the test for Arsenic. For example, if 10% of respondents in a given demographic should be selected for a certain test, the subsample rate would be 0.1. The respondent would only be eligible for the test if the randomly generated number is 0.1 or less. Other tests are selected for all respondents (ON) and others are not selected for any respondents (OFF). Certain tests also have a minimum and optimal volume that is used when splitting the tubes.

As with the specimen selection table above, this test selection table has a priority column which orders the tests in priority so that if there isn't enough biospecimen collected, the most important tests will be split first.

Respondent information						Subsample		Test information				
dryrun	**age_min**	**age_max**	**sex**	**smoke_type**	**selfast**	**ss_rate_var**	**t_flag**	**test_id**	**tube_id**	**min_vol**	**opt_vol**	**priority**
3	12	20	1	0	0	ARSC05	ARSCFLG	test_758	tube_758			7.1
3	12	20	1	0	0	BHT05	BHTFLG	test_768	tube_768			7.18
3	12	20	1	0	0	NNAL04	NNALFLG	test_760	tube_760	1.8	2.5	7.06
3	12	14	1	0	0		OFF	test_030	tube_030	0.98	0.98	3.06

selected for dryrun = 3 (not dryrun), age = 12, sex = 1, smoke_type = 0, selfast = 0 – this is only an example of rows

Valid values:

Column name	Valid values
Dryrun	1 & 2 = dry run 3 = Not a dry run
blood_storage & DNA_storage	1 = Yes 2 = No
Sex	1 = Male 2 = Female
Smoke Type	0 = Non-smoker but cannot determine if this person is exposed or not 1 = Non-Smoker non-exposed to smoke 2 = Non-Smoker exposed to smoke 3 = Smoker 6 = 1-2-year age group not eligible for measure 9 = Cannot determine if this person is a smoker or not
Selfast	0 = fasting not applicable (either 1 or 2 can be in the respondent info) 1 = fasting 2 = non-fasting
Main_alt_tube	Main = Main tube (collection) Sub = Sub-tube (splitting/aliquoting) Stand = Standalone tube

APPENDIX H Glossary of Terms & Acronyms

Term	Definition
1D & 2D barcode	1D and 2D are barcode types. 1D is for One Dimensional and 2D is for Two Dimensional.
.Net CORE	A free and open-source, managed computer software framework for Windows, Linux, and macOS operating systems.
Admin User	User who operates the Solution, performs designated operational and upkeep activities such as User Security, User Auditing, User Authentication, Database administration, and maintenance. This person is also responsible for the software installation, upgrades, and maintenance.
Alpine	A Linux distribution designed for security, simplicity, and resource efficiency.
Analysis	Detailed examination of a sample.
Application	In IT, this term refers to a defined software product designed for end-user-oriented tasks or a set of related tasks. As such, Application differs from Operating Systems and Utilities which manage, respectively, the computer itself and some specific function(s) of the operating system or communication between the operating system and application. An application may in reality consist of several computer programs residing on several computers. On occasion, the term “Application” may refer to automation created by personal productivity tools such as MS Office.
Audit Trail	An audit trail is a security-relevant chronological record, set of records, and/or destination and source of records that provides documentary evidence of the sequence of activities that have affected a specific operation, procedure, or event over time.
Biospecimen (biological sample)	A sample of material (such as urine, blood, tissue, cells, DNA, RNA, or protein) from humans, animals, or plants. Biospecimens may be used for a laboratory test or stored in a biobank to be used later for research.
Business Rule	The capability to abstract decisions from the application code allowing for more flexible processes; Business rules can be modified, by non-IT people, without having to alter the application code. There is an emerging standard in the OMG Decision Model & Notation (DMN) for the implementation of Business Rules (https://www.omg.org/spec/DMN).
Certification	A process performed by the Departmental Information Technology Security Coordinator wherein the technical evaluation of an application or a system's security features, made as part of and in support of the approval/accreditation process, establishes the extent to which a particular application or computer system design and implementation meet a set of specified security requirements.

Term	Definition
Chain of Custody	A Chain of custody is the chronological documentation or paper trail that records the sequence of custody, control, transfer, analysis, and disposition of physical or electronic evidence.
CHMS Employee	Person working for the CHMS.
ClinicID	A unique identifier attributed to each MEC respondent.
Cloud	Cloud computing is the on-demand availability of computer system resources, especially data storage and computing power, without direct active management by the user. The term is generally used to describe data centers available to many users over the Internet. Large clouds, predominant today, often have functions distributed over multiple locations.
Developer	User who uses the Solution and provides or uses tools and APIs to develop enhanced process flows or applications in which the centralized Solution, its content, APIs and tools are embedded, analysis functionality and reporting materials.
Docker	A set of products allowing packaging of an application and its dependencies into an isolated container, which can be run on any server. Containers are isolated from one another and bundle their own software, libraries and configuration files.
Equipment	Machine used to conduct test on sample in the laboratory OR Machine used to calibrate an instrument in the laboratory.
External Reference Laboratories (External Labs)	A laboratory that conducts analyses of specimens for Statistics Canada's Canadian Health Measures Survey.
HL7	Health Level Seven or HL7 refers to a set of international standards for transfer of clinical and administrative data between software applications used by various healthcare providers. These standards focus on the application layer, which is "layer 7" in the OSI model. The HL7 exchange standards are produced by Health Level Seven International, an international standards organization, and are adopted by other standard issuing bodies such as American National Standards Institute (ANSI) and the International Organization for Standardization (ISO).
Instrument	Instruments are used to measure units, like flow, pressure, weight, etc. Equipment consists of one or more instruments to perform different kinds of activities. For example: barcode scanners and weight scales are equipment, while a blood pressure monitor or a haematological analyser (PocHi) are instruments.
ISO 20387 Standard	Biobank Standard; general requirements for the competence, impartiality, and consistent operation which includes quality control requirements

Term	Definition
Kubernetes (K8s)	An open-source container-orchestration system for automating computer application deployment, scaling, and management
Laboratory Staff	Person working in the CHMS Laboratory.
LINUX	A family of open-source Unix-like operating systems based on the Linux operating system kernel
Medical Laboratory Technologist (MLT)	A regulated Healthcare professional in Canada who performs a variety of laboratory tests and procedures to assist physicians in diagnosing, monitoring, treating and preventing diseases. The tests cover a wide range of areas like chemistry, hematology, microbiology, immunology, and blood banking.
Perpetual License	A perpetual software license is a type of software license that authorizes a customer to use a program indefinitely. Generally, outside of termination, a perpetual software license allows the holder to use a specific version of a given software program continually with payment of a single fee. Extra cost can occur for ongoing support and upgrades.
Platform as a service (PaaS)	A category of cloud computing services that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with cloud services.
Process	In the context of business administration, a structured set of activities designed to accomplish a specific objective, or a deliverable in a qualified service offering. A process takes one or more defined inputs and turns them into defined outputs. It may include any of the roles, responsibilities, tools, and management controls required to reliably deliver the outputs. A process may define policies, standards, guidelines, activities, and work instructions if they are needed.
Reference interval (normal reference range)	In health-related fields, a reference interval is the range of values that is deemed normal for a physiologic measurement in healthy persons (for example, the amount of creatinine in the blood, or the partial pressure of oxygen).
RESTful API	is an application programming interface (API or web API) that conforms to the constraints of REST architectural style and allows for interaction with RESTful web services. REST stands for representational state transfer. The main guidelines of the RESTful architectural style are: Client-Server, Stateless, Cacheable, Uniform Interface, Layered System.
Sample	Specimen obtained during collection.
Sample File	The sample file contains information on each respondent (respondent profile) such as the name, respondent ID, age, sex, requirement for fasting, smoker/non-smoker, consent for DNA blood and urine, etc. This file is prepared prior to the start of a site.

Term	Definition
Single Sign-On	Mechanism allowing users to log in only once and access multiple applications without re-authentication.
Site	The geographic locations (town or city) where the Mobile Examination Center (MEC) is travelling to and collecting data there for a duration of 6 weeks.
Super User	A type of User with access to more capabilities than other Users, including system administration privileges.
Ubuntu	LINUX Operating System distribution composed mostly of free and open-source software.
Users	means an individual authorized by the Client to use the Licensed Software under the Contract and for the purposes of these supplemental general conditions, includes any employee, agent or contractor authorized to use the Licensed Software.

Acronym	Full Name
1D & 2D	One-dimensional & Two-dimensional barcode
API	Application Programming Interface
CHMS	Canadian Health Measures Survey
CI/CD	Continuous Integration & Deployment
COTS	Commercial Off-The-Shelf
CSP	Cloud Service Provider
CSV	Comma-Separated Values
DB	Database
DBMS	Database Management System
Dev	Development (environment)
DXA	Dual-energy X-ray Absorptiometry
FDA	U.S. Food and Drug Administration
GC	Government of Canada
HC	Health Canada
HL7	Health Level Seven
HMS	Health Measures Specialist
HO	Head Office
ISO	International Organization for Standardization

Acronym	Full Name
IT	Information Technology
LIMS	Laboratory Information Management System
MEC	Mobile Examination Center
MLT	Medical Laboratory Technologist
MS-AD	Microsoft Active Directory
MS-AAD	Microsoft Azure Active Directory
OS	Operating System
OZ	Operational Zone (network)
PaaS	Platform as a Service
PDF	Portable Document Format
PHAC	Public Health Agency of Canada
PPT	PowerPoint presentation
QA	Quality Assurance
REST	Representational State Transfer
RFP	Request For Proposal
SMTP	Simple Mail Transfer Protocol
SOR	Statement of Requirements
SSO	Single Sign-On
StatCan	Statistics Canada
TA	Technical Authority / Task Authorization
TLS	Transport Layer Security
USG	Urine Specific Gravity
UTF	Unicode Transformation Format
VPN	Virtual Private Network

APPENDIX I LIMS Components Requirements

This section contains the Solution requirements.

Requirements

No.	Description
E01	**Official Languages** The Solution **must** offer user interfaces in both of Canada's official languages (French and English). The Bidder must **describe** how their Solution is rendered bilingual (French & English); automated translation functionality is not acceptable. **NOTE**: Related to **6.3** item **#17**
E02	**Computing Environment – Cloud Environment** The Solution **must** install, deploy, work, and interoperate on StatCan's Department Computing Environment as described in the SOR sections **10** & **11**. **NOTE**: Bidder must **elaborate** on how it meets the requirement, taking care of each items in the description of section **10** & **11**.
E03	**Containerised Deployment** The Solution is provided and supported in a containerised deployment compatible with StatCan's production environment (Docker & Kubernetes).
E04	**Database Management System (DBMS)** The Solution **must** install, deploy, work, and interoperate with at least one DBMS, Cloud based COTS and/or Open Source, as its data repository; Home made DBMS are not acceptable. **NOTE**: StatCan is **not** looking for a DBMS licenses; the vendor does not have to supply a DBMS license.
E05	**Implementation & User Interface** The Solution **must** be implemented in such way that its Business Logic is separated from its user interface (as in a 3-tier system; front-end/web tier, middle/Application tier, and back-end/data tier). The Solution's user interface(s) **must** be Web based and compatible with StatCan's main web browsers (see SOR section "**10.2** – Workstation Environment"). **NOTE:** The bidder MUST describe how it conforms to this requirement (3-tier, Web browser compatibility, etc.).
E06	**Authentication & Authorization** The Solution **must** be capable to use the OpenID Connect & OAuth 2.0 technology standards for user authentication & Authorization purposes, as per SOR section "**10.3** – Directory Services". **NOTE:** The bidder MUST explain and/or provide documentation reference, providing an explanation of how this requirement is satisfied.

No.	Description
E07	**Users access restriction** The Solution **must** restrict access to information and capability, based on the user role/group it belongs (authorization). More specifically, the external web access must only allow users (from External Reference Labs) to see and update tracking information, for the purpose of package reception, without ever having access to see the patient/respondent specific information like name, address, age, sex, etc. **NOTE**: The External Reference Lab must not be able to see any information that is not related to the TestID it is responsible for. TestID related data must be visible to only the External Reference Lab they were sent to.
E08	**Single Sign-On & Session Timeout** The Solution allows single sign-on for Internal users (Internal LIMS Web portal), while External users authenticates directly to the application (External LIMS Web Portal). **NOTES**: 1. A session timeout is therefore only required for the External user sessions. 2. Bidder must provide details on how Single Sign-On is implemented. See the following section for reference: a) SOR section "**10.2** – Workstation Environment" b) SOR section "**10.4** – Security Policies" c) SOR section "**11** – CHMS Networks Environment"
E09	**User Notification – Authenticated SMTP** The Solution **must** be able to send email notification using "**authenticated"** Simple Mail Transfer Protocol (SMTP). **NOTE:** The bidder MUST explain and/or provide documentation reference, providing an explanation of how this requirement is satisfied, and how the user credentials are managed.
E10	**Basic LIMS functionalities** The Solution **must** satisfy all requirements listed in SOR section "**6.3** – Solution functionalities" item #**4**, **5**, **6**, **7**, **10**, **13** & **16**.
E11	**Time of events** The Solution **must** store the time of events with the information related to the time zone the event occurred-in, using established standards, in order to allow for the event to stand by itself (once the information is separated from the other records). The Bidder must **demonstrate** how time is stored (UTC, offset, time zone id, etc.) and how it can be retrieved and converted for reporting or other usage.

No.	Description
E12	**Multi-site Management** The Solution **must** have the ability to: a) manage samples across different distant sites, teams or laboratories. b) centrally manage all sites and their data access.
E13	**Documented API** The Solution **must** expose an Application Programming Interfaces (API) to allow integration with other application including the following: a) creation of a respondent profile (name, address, age, etc.); b) creation of biospecimen information related to a respondent profile; c) query of data (respondent profile, quantity to collect, specimen tracking, etc.); d) sufficiently documented to allow their complete use by developers. **NOTE:** The bidder MUST explain and/or provide documentation reference, providing an explanation (for each item a) to d)). **NOTE**: Related to **6.3** item **#3**
E14	**Document Format Compatibility** The Solution **must** be compatible with the following document formats: a) Excel and .csv for the purpose of importing & exporting data; b) PDF for the purpose of reporting (search result, test results, audit & chain of custody report, etc.).
E15	**Peripheral device integration** The Solution **must** integrate with our existing lab equipment and instruments (Refer to **APPENDIX E**). The Solution integrates with existing lab equipment and instruments using **simple** configuration or scripting. **NOTES**: 1. Integration means that the device can talk directly to the Solution without operator's involvement. 2. If the Solution require some customisation work to fulfil this requirement, please provide details of what is involved. **NOTE**: Custom code is not equivalent to configuration or scripting.

No.	Description
E16	**Information Exchange – HL7** The Solution **must** have HL7 v2 or v3 data exchange (both ways) capability, for the purpose of sending & receiving shipping information (shipping & acknowledgement), as well as receiving Lab test results. **NOTE 1**: Bidder must **elaborate** on how it meets the requirement, and provide any proof or certification. **NOTE 2**: Related to section **6.3** item #**14**.
E17	**Data Export & Import – Shipment Tracking** The Solution **must** be capable of exporting and importing, in **.csv** format, data related to the expedition of biospecimen (packaging and tracking data) in order to permit the exchange of information with External Reference Labs that don't support HL7. **NOTE 1:** The bidder MUST explain and/or provide documentation reference, providing an explanation of how this requirement is satisfied. **NOTE 2**: Related to section **6.3** item #**15**.
E18	**Data Import – Test Results** The Solution **must** be capable of importing test result data coming from External Reference Labs in a **.csv** format, while allowing for enough flexibility to tailor/add specific/custom field. **NOTE 1:** The bidder MUST explain and/or provide documentation reference, providing an explanation of how this requirement is satisfied. **NOTE 2**: Related to section **6.3** item #**15**.
E19	**Workflow – Implementation & Guidance** The Solution **must** have the ability to set up customized workflows and guide the MLTs by displaying the type of tubes to be filled for each step. **NOTE**: Related to **6.3** item #**1.**
E20	**Workflow - Test Selection** The Solution **must** have the ability to determine the required tests for each respondent based on the respondent's profile, consents, and other variables (some tests are chosen for all respondents, while other tests are randomly chosen from the eligible respondents based on the predetermined probability weights set on the respondent's profile). The LIMS respondent profile will be created using the API. Refer to section "**4** –Description of a typical appointment flow", "**APPENDIX F** – Reference Tables" and "**APPENDIX G** – Selection of specimen and tests" for details.

No.	Description
E21	**Workflow – Prioritization** The Solution **must** have the ability to set a prioritized list of tests to be run on biospecimen in cases where the sample collected does not have the required volume. Refer to section "**5** – Description of a typical Lab flow", "**APPENDIX F** – Reference Tables" and "**APPENDIX G** – Selection of specimen and tests" for details.
E22	**Workflow – Notes and Instructions** The Solution **must** have the ability to display notes and instructions during workflow **dependent** on previously collected respondent data. **NOTE**: Related to **6.3** item #**8.** **Example:** Before to proceed with Phlebotomy, the Lab Technologist will be provided with the following instruction to prompt the respondent and confirm fasting: **Question**: **I need to confirm your fasting status. When did you last eat or drink anything other than water (e.g., coffee, tea, alcohol, juice or flavoured water)?** **Instruction**: Probe to determine the date and time at which the respondent last ate or drank something that does not meet the phlebotomy fasting requirements.
E23	**Workflow – Text Display** The Solution has the ability, **out-of-the-box,** to display warning texts with different font options (e.g. use right arm, use washed pipette tips, etc.).
E24	**Workflow – Sample Verification** The Solution **must** have the ability to verify that samples were collected (i.e. aliquot) for the selected tests, and force the user to record the aliquot or to specify the reason if not collected. **NOTE**: Related to section **6.3** item #**9**.
E25	**Workflow – Reminders** The Solution provides configurable capabilities to generate and display reminders and alerts to the MLT. The Solution displays reminders and alerts to the MLT as follows: a) for instruments requiring calibration; b) for instruments requiring preventive maintenance.
E26	**Laboratory Instruments – Maintenance** The Solution allows to track preventative quality checks and maintenance for instruments, by: a) Safeguarding/storing maintenance records; b) tracking instrument status (available, out for maintenance, etc.).

No.	Description
E27	**Laboratory Instruments - Audit** The Solution is able to track the instrument identifier used to analyze a sample.
E28	**Data – Manual Entry** The Solution **must** allow MLTs to manually enter the test results for multiple tests that can be run on a sample.
E29	**Data – Reference Tables** The Solution **must** have the ability to implement validation and Reference Tables to facilitate the data entry process and to ensure the consistency, integrity, and standardization of the data. The Solution has the ability to implement validation and Reference Tables **as Business Rules** (as defined in **APPENDIX H**). **NOTE 1**: Although the Reference Tables are set at the beginning of the collection cycle (2 years), the Reference Tables need to be updated between cycles, and potentially during a cycle. **NOTE 2**: Related to section **6.3** item **#2**
E30	**Set Reference Intervals** The Solution supports "set reference intervals" (also known as "normal reference ranges") in order to identify out of range values.
E31	**Search Function – Data from Samples** The Solution **must** allow MLTs to search the data from any sample collected using the information collected (including but not limited to; clinic ID, participant ID, test ID, tubes ID, etc.) in the Solution. The search must display the data that meets the requirements of the search criteria and allow MLTs to sort the search results by any field of the search criteria.
E32	**Search Function – Multi fields** The Solution allows MLTs to sort the search results by more than one field of the search criteria (i.e. a nested sort). For example: sort by year and within a year by instrument number.

No.	Description
E33	**Test Result Export - Reporting** In order to provide test results, the Solution **must** offer functionalities to: a) export test results to a PDF file; b) customize reports or report templates (by Admin Users); c) add manual notes prior to final report generation. **NOTES:** 1. The bidder MUST explain and/or provide documentation reference, providing an explanation (for each item a) to c)). 2. The bidder must provide info regarding how the manual notes (c) can be safeguarded for future reference.
E34	**Report - Configuration** The Solution allows non-IT user to configure customized report templates. **NOTE**: If specific training is required for Non-IT to configure customised report template, the training must be included within the proposal/bid.
E35	**Bar-coding – New Labels** The Solution **must** have the ability to create barcode labels for biospecimen collection tubes/containers and communicate with a printer to print the barcodes.
E36	**Chain of Custody** The Solution **must** have the ability to track the location, through time, of the lab equipment and every sample from the time the sample is collected until it is destroyed or stored in the biobank (further referenced as Chain of Custody). This includes, but is not limited to tracking of the specific location of the sample or the equipment within the laboratory. For example: room, cabinet, refrigerator, freezer, etc. The Solution must also have the ability to generate, export, and print reports of this data. **NOTE**: Related to section **6.3** item #**11**.
E37	**Audit Trail** The Solution **must** have the ability to record information, for all Laboratory Users who access the system. If data has been added and/or updated in any of the data fields such as data field name, current and updated data, User Identification, and date and time. The Solution must also have the ability to generate, export, and print reports of this data. **NOTE**: Related to section **6.3** item #**12**.

No.	Description
E38	**Information Management** The Bidder **must** demonstrate that a record stored is authentic and is an accurate representation of all transactions to which it attests; therefore, the Solution must have the capability to prove that the record: a) is what it purports to be; b) was created by the person purported to have created it; c) was created at the time purported; and d) is complete and was unaltered, or, if the record was altered with different data values, it was done by an authorized person at a specified date and time.
E39	**Audit Log - View** The Solution allows Laboratory Staff Users and IT Users to view audit trails through the user interface.
E40	**Temperature Sensor** The Solution provides the capability to **a)** monitor fridge/freezer temperatures (fridge/freezer will be equipped with electronic temperature sensors) **b)** monitor sample shipping temperatures (shipping temperature will be monitored using temperature strips/labels), **c)** track temperature of the tubes and trays by retrieving data from temperature sensors (storage & shipping). **NOTE**: If the Solution require some customisation work to fulfil this requirement, please provide details of what is involved.
E41	**UTF Encoding** The Solution is able to process (Read/Import, Write/Export, Store, etc.) UTF encoding.
E42	**Standard 21 CFR part 11.30 Compliance** The Solution is compliant with FDA Code of Federal Regulations (CFR), Title 21 part 11.30 (Electronic Records; Electronic Signatures). **NOTE:** The bidder MUST provide documentation showing proof of compliance.
E43	**ISO 20387 Standard Compliance** The Solution is compliant with ISO 20387 Standard (Biobank Standard; general requirements for the competence, impartiality, and consistent operation including quality control requirements). **NOTE:** The bidder MUST provide documentation showing proof of compliance.

No.	Description
E44	**ISO 14001 Standard Compliance** The Bidder complies with ISO 14001 Standard (Environmental Management Systems). **NOTE:** The Bidder MUST provide documentation showing proof of compliance. **Ref:** https://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/programme-program/management/iso/sme-ems/index-eng.html https://www.iso.org/standard/60857.html
E45	**Documentation** All products composing the Solution is sufficiently documented to allow their installation, configuration, use, and operation. The documentation may include but is not limited to, user guides, configuration guides, developer guides, administration and management guides, online help, books, white papers, and "How To" guidance. The Bidder **must** provide a list (per product) of provided documentation **and** a list (per product) of available documentation.
E46	**Compatibility with Canada Post Web Services AND/OR Purolator E-Ship Web Services** The Solution **should** have the capacity to integrate with the Canada Post AND/OR Purolator suite of services to generate shipping labels and recording tracking number. **NOTE**: If the Solution require some customisation work to fulfil this requirement, please provide details of what is involved. **NOTE**: Biospecimen samples are considered dangerous goods, and only Canada Post and Purolator are authorised for the delivery of dangerous goods in Canada. Links provided for information purpose only: Canada Post: https://www.canadapost-postescanada.ca/cpc/en/business/ecommerce/integrate-apis.page Purolator: https://eship.purolator.com
E47	**Customer Service & Technical Support** All products composing the Solution **must** be fully supported by one single customer service, providing technical help via telephone and website support. The Bidder must provide unlimited technical phone support during regular Ottawa, Canada business hours (8:00 am and 5:00 pm, Canada Eastern Time) through a Support Line. Maintenance & Support must be provided in accordance with Canada Maintenance and Support Services for Licensed Software (https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/4/4004/5)

ANNEX B – BASIS OF PAYMENT

A - Contract Period (As per 7.4 of the Contract)

During the period of the Contract, for Work performed in accordance with the Contract, the Contractor will be paid as specified below.

1. Milestone payment - Base Solution Delivery

The price indicated below for Base Solution Delivery in accordance with payment milestone in section 7.3 Delivery Table of SOR:

#	DELIVERABLES	ALL INCLUSIVE PRICE
(A)	(B)	(C)
1	**All inclusive price for the costs associated with tasks under the section 7 - Base Solution Delivery of SOR**	

2. Deliverables - Licenses and Annual Maintenance and Support

The cost of the Initial Quantity of Licenses will only be paid after the acceptance of work associated with all milestones of 7.3 Delivery Table of SOR. Yearly Maintenance and Support costs will be prorated for the number of months remaining in the contract period from the date which the license is acquired.

				LICENSE	ANNUAL MAINTENANCE AND SUPPORT		Initial Requirement
#	DELIVERABLES	LICENSE TYPE	USER TYPE	UNIT PRICE	PRICE	COST TYPE	INITIAL QUANTITY
(A)	(B)	(C)	(D)	(E)	(I)	(J)	(F)
1	**Production Environment**	Perpetual License	User				24
		Perpetual License	Super User				5
2	**QA Environment**	Perpetual License	User				25
		Perpetual License	Super User				5
3	**Test Environment**	Perpetual License	Developers				4
		Perpetual License	User Acceptance Testers				9
4	**Development Environment**	Perpetual License	Developers				4

B - Option to Extend the Term of the Contract

This section is only applicable if the option to extend the Contract is exercised by Canada.

Canada may extend the contract as per 7.4.3 of the contract. In the event the term is extended the prices from 2. Deliverables - Licenses and Maintenance and Support shall be adjusted in accordance with 7.6.4 of the contract.

Canada may purchase additional optional licenses to satisfy evolving operational needs at these adjusted prices by issuing options.

C - Other Direct Expenses - Post Implementation Professional Services as Required (Task Authorization)

In accordance with 7.1.2 of the contract Canada may utilize task authorizations for the Actual Costs for Post Implementation Professional Services as Required as defined in Article 9 of the SOR.

The Contractor will be reimbursed the other direct expenses it reasonably and properly incurred in the performance of the Work associated with the task authorizations, at cost, without any allowance for profit and administrative overhead. These expenses will be paid upon submission of an itemized invoice in accordance with the contract article 7.7.2 Invoicing Instructions – Task Authorizations.

D - Total Estimated Cost- Contract Period exclusive of Other Direct Expenses - Post Implementation Professional Services as Required (Task Authorization): $ _____ *(Amount to be inserted at contract award)*

ANNEX C – PWGSC TPSGC 572 TASK AUTHORIZATION FORM

(ATTACHED)

Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

Annex Annexe C

Task Authorization
Autorisation de tâche

Contract Number - Numéro du contrat	

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (Applicable taxes extra) Coût total estimatif de la tâche (Taxes applicables en sus) $

Security Requirements: This task includes security requirements
Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité

☐ No - Non ☐ Yes - Oui If YES, refer to the Security Requirements Checklist (SRCL) included in the Contract
Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat

For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (Applicable taxes extra) before the revision Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision $	Increase or Decrease (Applicable taxes extra), as applicable Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu $

Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.

Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.

1. Required Work: - Travaux requis :

A.Task Description of the Work required - Description de tâche des travaux requis — See Attached - Ci-joint ☐

B. Basis of Payment - Base de paiement — See Attached - Ci-joint ☐

C. Cost of Task - Coût de la tâche — See Attached - Ci-joint ☐

D. Method of Payment - Méthode de paiement — See Attached - Ci-joint ☐

Contract Number - Numéro du contrat

2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

Name and title of authorized client - Nom et titre du client autorisé à signer

Signature | Date

PWGSC Contracting Authority - Autorité contractante de TPSGC

Signature | Date

3. Contractor's Signature - Signature de l'entrepreneur

Name and title of individual authorized - to sign for the Contractor
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

Signature | Date