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

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Title - Sujet RFI for AI Services	
Solicitation No. - N° de l'invitation 24062-190106/A	**Amendment No. - N° modif.** 002
Client Reference No. - N° de référence du client 24062-190106	**Date** 2018-07-13
GETS Reference No. - N° de référence de SEAG PW-$$EE-017-33657	
File No. - N° de dossier 017ee.24062-190106	**CCC No./N° CCC - FMS No./N° VME**

Solicitation Closes - L'invitation prend fin
at - à **02:00 PM**
on - le **2018-08-17**

Time Zone
Fuseau horaire
Eastern Daylight Saving Time EDT

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

Address Enquiries to: - Adresser toutes questions à: Lessard, Peter	**Buyer Id - Id de l'acheteur** 017ee
Telephone No. - N° de téléphone (613) 850-7602 ( )	**FAX No. - N° de FAX** ( ) -

Destination - of Goods, Services, and Construction:
Destination - des biens, services et construction:

Comments - Commentaires

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

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**

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

Issuing Office - Bureau de distribution

Systems Software Procurement Division / Division des achats des logiciels d'exploitation
Terrasses de la Chaudière
4th Floor, 10 Wellington Street
4th etage, 10, rue Wellington
Gatineau
Quebec
K1A 0S5

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**

AMENDMENT 002 IS RAISED AS FOLLOWS:

A) To revise the Draft Agenda as follows:
Delete the Draft Agenda from Amendment 001 in its entirety and replace with the following:

DRAFT AGENDA

ITEMS	DESCRIPTION	TIMING
1	Arrival and Registration	08:00 – 08:30
2	Introductions and Welcoming Remarks	08:30 – 8:50
3	Overview of Government of Canada (GoC) Procurement, RFI Process and RFI Questions	08:50 – 9:40
4	Coffee Break	09:40 – 10:00
5	Roundtable Discussion	10:00 – 11:45
6	Closing Remarks	11:45 – 12:15

B) To amend the RFI document to include additional questions to the industry:

Delete section 5 of the RFI document and insert the following:

5. Questions

This document has a number of attachments:
- Annex A: Responsible Artificial Intelligence in the Government of Canada
- Annex B: Algorithmic Impact Assessment (AIA)
- Annex C: Industry Engagement Information (Posted July 6, 2018)
- Annex D: Automated Decision Making Standard (New)

Please take into account the contents of all the documents when considering the following questions.

A. AI MARKET OVERVIEW

1. Given the information provided to you are there any significant gaps in the identified requirements or background information? If so, how could they be improved?

2. Can you please describe how the AI industry is currently structured?

3. What are some of the key considerations in relation to how AI services, solutions and products are currently being provided by the industry?

4. What is the best way to successfully engage and work with the industry?

B. <u>COMPANY OVERVIEW</u>

5. Please provide detailed information about the services, solutions and/or products provided by your company.

6. Has your company provided AI services, solutions or products for public sector or private sector organizations in Canada or elsewhere? If so, please describe.

C. <u>INTELLECTUAL PROPERTY</u>

7. Given the importance of transparency, what are some of the key considerations that pertain to licenses and IP in the context of AI services, solutions and products?

8. Who owns the Intellectual Property generated during the course of an AI implementation? What parts of the IP would the GoC need to retain to ensure transferability of work to subsequent contractors?

D. <u>PROCUREMENT</u>

Evaluation

9. What would be the best evaluation criteria to successfully pre-qualify companies for the future AI procurement vehicle, for example: company experience, # of projects completed, experience of personnel, breadth and depth of services, other? Evaluation criteria should be objective, pertinent and measurable.

Market Segments

10. Are there any interdependencies between the AI market segments of professional services, cloud providers, AI technology services, or other?

11. Can you briefly outline the major market segments of the AI marketplace, and how they work together or would the GoC be better served by an end-to-end service provider?

Costing

12. How is costing structured for the products and services you provide?
    a. Fixed price for a defined scope,
    b. time and material consumed during the work,
    c. combination of factors (Software as a Service (SaaS) costs, professional services costs, etc)
    d. Other cost structure.

13. Would a performance based model be a consideration? (i.e. Incentive for early delivery of a solution, products, services, capabilities or features)

Terms and Conditions

14. How does the AI industry deal with Limitation of Liability in contracting?

15. Would your company be in a position to accept the GoC's Limitation of Liability (LoL) clause? If not, what changes would need to occur?

   The following link provides information with regards to GoC Limitation of Liability: English: https://buyandsell.gc.ca/policy-and-guidelines/supply-manual/section/4/70/90

16. Are there any 3rd party liability issues that the GoC would need to account for in procurement?

Project Design and Delivery

17. What would your company want to see in a Statement of Work from the GoC to help to ensure a successful AI project and/or make it worthwhile to bid?

18. Do you anticipate any concerns with providing sufficient professional services resources to deliver AI services, products and solutions? If Canada were to increase the need for AI service resources, would the industry be capable of meeting the increased demand?

19. How would you propose that the GoC reflect, monitor and adjust for changes in AI algorithms, technology, and evolution of products over time in a contract with the GoC?

20. Given that the AI industry is so dynamic, how would you recommend that the GoC position its procurement process to respond to that dynamic environment?

Security and privacy

21. With regards to the GoC security policies listed below, (i.e. data sovereignty and data residency) what security-privacy issues do you foresee and how would you propose to address them?

   https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/policy-implementation-notices/direction-electronic-data-residency.html

   https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/security-identity-management/direction-secure-use-commercial-cloud-services-spin.html

   https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/cloud-computing/government-canada-cloud-adoption-strategy.html

   https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/cloud-computing/cloud-security-risk-management-approach-procedures.html

General

22. What can GoC do to be in the best position to receive AI related products and services? For example, what level of training, data availability, senior management support, policy changes, etc,

23. How can the GoC maximize the benefits of using AI to deliver services?

24. Within the next five (5) years, what evolution can we expect to see as major trends in AI that you would recommend to the GoC to take into account in the current development of an AI procurement instrument?

25. How should the GoC incorporate AI related ethical considerations into our contracting process, SOW, evaluation criteria or other?

26. Is there anything we forgot to ask?

Industry is encouraged to visit https://buyandsell.gc.ca/ regularly for information relating to timing, format and requirements.

For any other information regarding Industry Day, please contact the Contracting Authority identified in the RFI, section 4.

Standard on Automated Decision-Making

Introduction

Promotes the use of automated decision-making while ensuring that its are compatible with core administrative law principles such as *transparency*, *accountability*, *legality* and *procedural fairness*.

1. Effective Date

1.1. This standard takes effect on ((TB approval +6 months))

1.2. All Decisions Support Systems that were in production prior to the coming into force of this standard, must complete an Algorithmic Impact Assessment and comply with all applicable provisions of this Standard within six months.

2. Application

2.1. This Standard applies to all institutions referenced in the *((Policy under which this resides))*, unless excluded by specific acts, regulations or orders-in-council;

2.2. Agencies and Crown Corporations may enter into Specific Agreements with the Treasury Board of Canada Secretariat to adopt the requirements of this Standard and apply them to their organization, as required.

3. Context

3.1. The Government of Canada is increasingly looking to utilise technology and automated systems to make, or assist in making, administrative decisions to improve service delivery;

3.2. The Government of Canada is committed to ensure that the use of Automated Decision Systems are used ethically, and are compatible with core administrative law principles such as *transparency*, *accountability*, *legality* and *procedural fairness*;

3.3. This Standard is issued under the authority of section 7 of the *Financial Administration Act*;

3.4. This Standard supports the *Policy on Management of Information Technology*, *Policy on Information Management*, the *Policy on Service*, the *Policy on Privacy Protection*, and the *Policy on Government Security*;

4. Definitions

4.1.   Definitions to be used in the interpretation of this standard are listed in Appendix A.

5. Statement

5.1. Objective

5.1.1.   To ensure that Automated Decision Systems are deployed in a manner that minimizes risks to Canadians and federal institutions, and leads to more efficient, accurate, consistent, and interpretable decisions made pursuant to Canadian law and core principles of administrative law.

5.2. Expected Results

5.2.1.   Administrative decisions are more transparent and accountable;

5.2.2.   An increase in the use of automated systems to make, or assist in making, administrative decisions.

6. Scope

6.1.   This Standard applies only to systems that provide recommendations to an authorized human administrative decision-maker ("Automated Decision System"). This includes systems that:

6.1.1.   Classifies cases in terms of risk and priority;

6.1.2.   Identifies cases for human review or investigation;

6.1.3.   Provides overall recommendations about whether an application should be approved;

6.1.4.   Renders the final administrative decisions.

6.2.   This Standard applies only to systems that provide external services as defined in the Policy on Service.

7. Requirements

The institution's Chief Information Officer, as well as the Assistant Deputy Minister or equivalent are responsible for the following activities described in this section:

7.1. Algorithmic Impact Assessment

7.1.1.   Complete an Algorithmic Impact Assessment, prior to the production of any Automated Decision System.

7.1.2.   Apply the relevant requirements prescribed in Appendix C as recommended by the Algorithmic Impact Assessment.

7.1.3.   Ensure that the Algorithmic Impact Assessment remains up to date and accurately reflects the functionality of the Automated Decision System.

7.1.4.   Release the final results of Algorithmic Impact Assessments in an accessible format via Government of Canada websites and services designated by the Treasury Board of Canada Secretariat pursuant to the Directive on Open Government.

7.2. Transparency

Providing Notice Before Decisions

7.2.1.   Provide notice to affected individuals at the earliest stages of administrative process that the decision rendered will be undertaken in whole or in part by a Automated Decision System, unless stated otherwise in legislation or regulation.

7.2.2.   Ensure that any affected individuals can have access to information about the Automated Decision System's functionality. This includes, at minimum:

   a.   The role that the Automated Decision System has within the decision-making process,
   b.   A description of the training data, or a link to the anonymized training data if this data is publicly available, and
   c.   A description of the criteria used for making the decision, including business rules.

Providing Explanations After Decisions

7.2.3.   Provide a meaningful explanation to affected individuals of how and why the decision was made as prescribed in Appendix C.

Open Source Code

7.2.4.   Make available to the public all of the source code used for the Automated Decision Systems on a website or service designated by the Treasury Board Secretariat.

7.2.5.   In cases where it is deemed that source code should not be disclosed, seek the approval of the Enterprise Architecture Review Board to exempt the disclosure. In these cases, the justification as to why code was not disclosed shall be published according to the process specified in the Directive on Open Government.

7.2.6.   Ensure that all licenses required for the Automated Decision Systems are open licenses as listed in the Open Source Software Registry. In all cases, Canada must maintains the right to have access to foreground intellectual property to respond to any legal challenges.

7.3.   Quality Assurance

Testing and Monitoring Outcomes

7.3.1.   Before going into production, develop the appropriate processes to ensure that training data is tested for unintended data biases and other factors that may unfairly impact the outcomes.

7.3.2.   Monitor the outcomes of Automated Decision Systems on an ongoing basis to safeguard against unintentional outcomes and to ensure compliance with institutional and program legislation, as well as this Standard.

Data Quality

7.3.3.   Ensure that data being used by the Automated Decision System is routinely tested to ensure that it is still relevant, accurate and up-to-date and follow any applicable policy or guidelines with regards to data management practices.

Peer Review

7.3.4.   Retain the appropriate expert to review the Automated Decision system, as provided in Annex C based on the Impact Assessment Level.

Training

7.3.5.   Ensure that some employees are sufficiently trained in the design, function, and implementation of the Automated Decision System to be able to review, explain and oversee automated decision-making, as required.

Contingency

7.3.6.   Ensure that a contingency systems and/or processes are available should the Automated Decision System be unavailable for an extended period of time.

Security

7.3.7.   Conduct risk assessments throughout the development of the system and ensure appropriate safeguards to be applied, as per the Policy on Government Security.

Legal

7.3.8.   Consult with the institution's legal services unit, to ensure that the use of the Automated Decision System is authorized by law.

7.4.   Recourse

7.4.1.   Affected individuals must be provided with information with regards to the options that are available to them for recourse to challenge the automated decision.

7.5.   Reporting

7.5.1.   Information on the effectiveness and efficiency of the Automated Decision Systems will be published annually on websites and services designated by the Treasury Board of Canada.

7.5.2.   When requested, information on the achievement of the expected results of the Automated Decision System and compliance with this Standard will be provided to the Treasury Board of Canada Secretariat.

8.   Consequences

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8.1.   Failure to comply with this Standard will result in the need to provide additional information relating to the development and implementation of compliance strategies in their annual report to Parliament. This reporting will be in addition to other reporting requirements and will specifically address the compliance issues in question.

9.   Roles and Responsibility of Treasury Board of Canada Secretariat

The Chief Technology Officer for the Government of Canada is responsible for:

9.1. Setting government-wide direction on artificial intelligence generally, as well as establishing guidance for Automated Decision Systems.

9.2. Developing and maintaining the Algorithmic Impact Assessment and any supporting documentation.

9.3. Communicating and engaging government-wide and with partners in other jurisdictions and sectors to develop common strategies, approaches, and processes to support the responsible use of Automated Decision Systems.

9.4. Reviewing this Standard every three years after its effective date.

10. References

10.1. ((Relevant Legislation))
Financial Administration Act
Access to Information Act
Privacy Act
Security of Information Act

10.2. ((Relevant Policy Instruments))
Policy on Access to Information
Policy on Service
Policy on Government Security
Policy on Information Management
Policy on Management of Information Technology
Policy on Privacy Protection
Directive on Open Government

11. Enquiries

For information on this policy instrument, please contact the Treasury Board of Canada Secretariat Public Enquiries.

Appendix A - Definitions

Automated Decision System
An Automated Decision System includes any information technology designed to provide a specific recommendation to a human decision-maker on an administrative decision, or designed to make an administrative decision in lieu of a human decision maker.

Administrative Decision
Any decision that is made by a Minister, a Minister's delegate, a court, or an administrative tribunal, authorized by legislation or regulation that affects the rights and/or interests of others.

Algorithmic Impact Assessment
A framework to help institutions better understand and mitigate the risks associated with Automated Decision Systems and to provide the appropriate governance, oversight and reporting/audit requirements that best match the type of application being designed.

Source Code
Computer program in its original programming language, human readable, before translation into object code usually by a compiler or an interpreter. It consists of algorithms, computer instructions and may include developer's comments.

Appendix B - Impact Assessment Levels

Level	Description
I	**The decision has a little to no impact on the rights or interests of an individual, community, organization, society, or the environment.** Erroneous decision could reasonably be expected to cause nil to minimal harm.
II	**The decision has a moderate impact on the rights or interests of an individual, community, organization, society, or the environment.** Compromise could reasonably be expected to cause minimal to moderate harm.
III	**The decision has a high impact on the rights or interests of an individual, community, organization, society, or the environment**. Compromise could reasonably be expected to cause moderate to serious harm.
IV	**The decision has a very high impact on the rights or interests of an individual, community, organization, society, or the environment**. Compromise could reasonably be expected to cause serious to catastrophic harm.

Appendix C - Impact Level Requirements

Requirement	Level I	Level II	Level III	Level IV
Peer Review	**None**	**At least one of:** Qualified expert from a federal, provincial, territorial or municipal government institution Qualified members of faculty of a post-secondary institution Qualified researchers from a relevant non-governmental organization Contracted third-party vendor with a related specialization Publishing specifications of the Automated Decision System in a peer-reviewed journal	**At least one of:** Qualified expert from a federal, provincial, territorial or municipal government institution Qualified members of faculty of a post-secondary institution Qualified researchers from a relevant non-governmental organization Contracted third-party vendor with a related specialization Publishing specifications of the Automated Decision System in a peer-reviewed journal	**At least two of:** Qualified experts from the National Research Council of Canada or Statistics Canada Qualified members of faculty of a post-secondary institution Qualified researchers from a relevant non-governmental organization Contracted third-party vendor with a related specialization **OR:** Publishing specifications of the Automated Decision System in a peer-reviewed journal
Explanation Requirement for Recommendation (6.1.1 and 6.1.2)	None	None	Meaningful explanation provided upon request based on machine or human review.	Meaningful explanation, including the variables that contributed to the decision, provided

				with the decision rendered. Explanation can be human or machine generated.
Explanation Requirement for Decisions (6.1.3 and 6.1.4)	An explanation provided upon request based on machine or human review. This could include a Frequently Asked Questions section of a website.	Meaningful explanation provided upon request based on machine or human review.	Meaningful explanation, including the variables that contributed to the decision, provided with the decision rendered. Explanation can be human or machine generated.	Meaningful explanation, including the variables that contributed to the decision, provided with the decision rendered. Explanation can be human or machine generated.
Approval Requirement	(…)			