

Attachment 3

Statement of Work for Open by Default Pilot Portal Challenge

1. Introduction

The Government of Canada has outlined commitments to advance openness and transparency through Action Plans on Open Government submitted to the Open Government Partnership since 2012. One of the core mandates expressed in these action plans is to advance openness through the open government website, open.canada.ca.

The Open Government website was initially launched as a pilot, data.gc.ca, in 2011. The pilot open data portal then expanded to include various information resources and to facilitate engagement on the open government initiative and associated activities. In keeping with Canada's initial strategy on open government, the Open Government website's architecture is built around the pillars of open data, open information and open dialogue, and its infrastructure is built on open source solutions: CKAN, Drupal and Solr. As Canada continues to advance the open government initiative and to release a growing number of resources, it has become apparent that the accessibility of content needs to be improved. There is also a desire to do more in terms of engaging with users and visitors through the Open Government website.

Canada is committed to removing barriers to access for Government information and services. With that in mind, Canada is mandated to ensure that all websites and web applications adhere to the AA level of the Web Content Accessibility Guidelines 2.0, developed by the World Wide Web Consortium. These requirements are more specifically spelled out for application to Canada in the [Standard on Web Accessibility](#).

New resources of information are constantly being added to the Open Government website and the future vision is for it to become a hub of data, information and opportunities to participate and learn. Early research indicates that a majority of users are seeking data of one type or another, with a smaller but significant group looking for opportunities to participate or engage with government.

As Canada's work on open government advances, there are opportunities to improve the user experience of its online tools, including improving access to digital publications and draft documents made available by the Government of Canada.

2. Background

2.1 The Open by Default Pilot Portal (<http://pilot.open.canada.ca/open-by-default-pilot>)

The Open by Default Pilot Portal, launched in July 2017, is the newest component of the Open Government website. It is an online beta site where various types of non-sensitive federal-level documents in draft format (i.e. working documents) are made publicly available, providing users with insight into what Government of Canada employees are working on (e.g., presentations, speaking notes, infographics, annual reports, etc.). The Open by Default Pilot Portal leverages existing operational systems that are used to power open.canada.ca, including CKAN, Drupal and Solr. It also leverages GCDocs, an internal records management tool. The technical architecture of the Open by Default Pilot Portal, a separate, beta-stage instance within open.canada.ca, mirrors that of the Open Government Portal. All source code for the architecture is available on GitHub for reuse here : <https://github.com/open-data>.

The Open by Default Portal consolidates draft documents (“Digital Assets”) provided by four pilot departments: Natural Resources Canada, Canadian Heritage, Environment and Climate Change Canada, and the Treasury Board of Canada Secretariat. However, additional partner departments will be on-boarded in the future. The Open by Default Pilot Portal includes Digital Assets that are works in progress which have not necessarily been created or formatted for compliance with web accessibility standards.

Currently, the Open by Default Portal contains approximately 550 Digital Assets in common formats such as .doc, .docx, .xls, .xlsx, .ppt, .pptx, .pdf, and .png. The collection contains such Digital Assets as draft policies, internal draft documentation on systems, and presentations. It is expected that future Digital Assets holdings on the portal could be expanded to include audio and video formats. It is also expected that the volume on content could expand to include 100,000s of digital assets over the next few years, as departments are onboarded.

3. Challenge

TBS has a requirement for an open source software solution (“Solution”) (existing or developmental but not proprietary) to enhance and improve the accessibility of both current and future Digital Assets housed on the Open by Default Pilot Portal. Proposed Solutions must also be compatible with the Open Government website’s existing digital infrastructure.

The following illustrative list provides examples of accessibility issues Solutions may address in responding to the challenge. This list is non-exhaustive; Solutions may address any of these accessibility issues or may address accessibility issues not listed below.

- Lack of ability within the system to automatically transform Digital Assets created in both official languages, into Digital Assets which conform to a minimum of WCAG 2.0 AA. Digital assets which additionally conform to WCAG 2.1 and/or EN 301 549 would be preferred.
- Lack of ability within the system to programmatically generate conforming alternate versions of Digital Assets available through the Open by Default Pilot Portal in a variety of formats, and in both official languages, such as PDF/UA, EPUB3, and ODF;
- Lack of ability within the system to programmatically generate alternate versions of Digital Assets available through the Open by Default Pilot Portal in a variety of braille formats such as .BRF and .BRL in both official languages;
- Lack of ability within the system to generate and embed within Digital Assets an accessibility compliance report for Digital Assets in both official languages, against at a minimum WCAG 2.0 AA standards, compliance to other web accessibility standards would be preferred;
- Lack of ability within the system to programmatically add system generated alt text / descriptive text in both official languages to images;
- Lack of ability within the system to programmatically generate transcripts of English and French voice audio recordings ;
- Lack of ability within the system to generate animated American Sign Language or Quebec Sign Language from spoken word audio or video;
- Lack of ability within the system to programmatically generate described video, transcripts, closed captioning for video content created in both official languages;
- The absence of the ability for the system to assign and display Flesch-Kincaid Reading grade level for English content or Scolarius score for French content;
- The absence of the ability for the system to programmatically reduce the reading grade level of the content to a target of grade 8, in accordance with WCAG 2.0 AAA; and,

- Lack of available document templates that force users to generate documents in a method that complies with, at a minimum WCAG 2.0 AA. Templates which additionally conform to WCAG 2.1 and/or EN 301 549 would be preferred.

4. Scope

4.1 Phase 1

4.1.1 Finalization of Draft Design and Implementation Plan

Within 10 working days of the Contract being awarded, the Technical Authority will provide any comments electronically that it has regarding the draft design and implementation plan submitted by the Contractor as part of its bid. The Contractor must update its Design and Implementation Plan to reflect Technical Authority's comments and resubmit it electronically to Technical Authority for approval within 5 working days.

The Design and Implementation Plan must specify the delivery dates for all deliverables identified in Phases 2 and 3. Canada's Open Government Portal team will use a public facing version control repository hosting service - GitHub.com. This will enable anyone to subscribe to notifications of changes while also allowing for conversations, issue tracking, and code reviews.

4.1.1.1 Deliverable(s)

1. Finalized Design and Implementation Plan

Due date: Within 15 working days of Contract award

4.1.2 Demonstration

The Contractor must demonstrate the basic functionality of Solution including at a minimum an early stage functional prototype (defined as a minimum viable demonstration of capability) to the Technical Authority and representatives of Canada, in person at a location to be determined by the Technical Authority.

At a minimum the presentation must include: a functionality demonstration of the prototype of the Solution and an overview of the Contractor's proposed design and implementation plan for Phase 2 and 3. The presentation should also include an overview of the Innovativeness, Scalability, Accessibility and Functionality of the proposed Solution.

The prototype must demonstrate the ability to improve the accessibility of Digital Assets in relation to at least one of the accessibility issues proposed to be addressed in the Contractor's draft Design and Implementation Plan.

An independent panel will observe the presentation and convene to determine whether to move forward with Phases 2 and 3 of the Contract.

4.1.2.1 Deliverable(s)

1. Presentation to include .ppt format and a demonstration of the prototype delivered to the Technical Authority.

Due date: Within 15 working days of Contract award

4.1.3 Financial Proposal

The Contractor must provide a Financial Proposal for Phases 2 and 3 of the Work in accordance with Annex B, Basis of Payment. The Financial Proposal for Phases 2 and 3 will be subject to negotiation with Canada. Upon Canada's request, the Contractor must provide Price Support for the Financial Proposal for Phases 2 and 3, which may include; a current published price list indicating the percentage discount available to Canada; or copies of paid invoices for the like quality and quantity of the goods, services or both sold to other customers; or price or rate certifications; or any other supporting documentation as requested by Canada.

The Financial Proposal for Phases 2 and 3 must include the following information, as applicable, for each element of the Work:

- a) Labour: For each individual and (or) labour category to be assigned to the Work, indicate: i) the hourly rate, inclusive of overhead and profit; and ii) the estimated number of hours.
- b) Materials and Supplies: Identify each category of materials and supplies required to complete the Work and provide the pricing basis.
- c) Subcontracts: Identify any proposed subcontractor and provide for each one the same price breakdown information as contained in this article.
- d) Other Direct Charges: Identify any other direct charges anticipated, such as long distance communications and rentals, and provide the pricing basis.
- e) Profit: Identify proposed profit, if any, and the basis on which it is computed and applied.
- f) Overhead: State the applicable overhead.
- g) Applicable Tax: Identify any Applicable Tax separately.

4.1.3.1 Deliverable(s)

1. Financial Proposal for Phases 2 and 3 of the challenge delivered to the Contracting Authority electronically in .pdf format.

Due date: Within 15 working days of Contract award

4.2 Phase 2 (Optional)

4.2.1 Development and Testing

4.2.1.1 Test Plan

The Contractor must provide a Test Plan to the Technical Authority following commencement of Phase 2. The test plan must demonstrably exercise all new functionality of the Solution. The Test Plan must be in the form of a MS Excel spreadsheet that documents each test case, and include, at a minimum:

- a. A test case number;
- b. Step-by-step instructions for testers to complete each test case;
- c. Success criteria for each test case;
- d. Description of the functionality the test case addresses;
- e. Fields next to each test case for testers to compile testing notes/results;
- f. Test data;
- g. Exit criteria; and

h. The test plan must be in a .pdf, .odf, or .docx document for addition to the Canadian Open Government CKAN.

4.2.1.2 Baseline testing

The Contractor must execute the test plan, in order to establish a performance baseline of the functionality of the Solution, and update and resubmit the Design and Implementation Plan to the Technical Authority for approval as necessary.

4.2.1.3 Development and Debugging

The Contractor must correct software defects identified during the baseline testing and update the Solution source code. The Contractor must provide a Defect Debugging Report to Technical Authority documenting the defects, and their corrections.

4.2.1.4 Standards Compliance testing

The Solution must comply with Government of Canada Standards for Web Accessibility and Web Security. Canada will test the Solution for compliance with these standards. The Technical Authority will provide detailed feedback to the Contractor on any issues revealed by compliance testing. The Contractor must resolve the issues in the source code revealed by compliance testing and update the Solution source code.

Evidence of user testing, debugging, testing for accessibility and security, and an updated Design and Implementation Plan (if applicable) must be provided to the Technical Authority for approval.

4.2.1.5 Deliverable(s):

1. Test Plan,
2. Defect Debugging Report,
3. Evidence of baseline testing, debugging, and resolution of compliance testing issues,
4. Updated Design and Implementation Plan (if applicable),
5. Updated Source Code (if applicable).

Due date: To be determined in accordance with the Contractor's Design and Implementation Plan.

4.2.2 Unit and Integration Testing

4.2.2.1 Unit Testing

The Contractor must perform unit testing and integration testing of the Solution with the Open Government website infrastructure and update the Design and Implementation Plan. The Contractor must perform all unit and integration testing in their own environment.

The Contractor must conduct automated unit tests for all python based software modules. The Contractor must resolve any issues revealed by the automated unit tests and update Solution source code. The Contractor must provide a report electronically in .pdf format to the Technical Authority detailing the results of all automated unit testing.

4.2.2.2 Integration Testing

The Contractor must perform integration testing on its own system, resolve any issues revealed through integration testing and update the Solution source code. Canada will provide the Contractor with a downloadable virtualbox image of the Open by Default Portal configuration allowing the Contractor to configure their environment for integration testing.

As a final test the Contractor must provide instructions and the updated source code for Canada to install and test the code on an open.canada.ca development environment. The Contractor must provide a report to the Technical Authority detailing the results of their internal integration testing and the instructions for Canada to install and test the source code in the development environment.

In accordance with timelines to be established in the Design and Implementation Plan, The Technical Authority will provide detailed feedback to the Contractor on any issues revealed by its own integration testing. The Contractor must resolve the issues revealed and resubmit the updated source code to the Technical Authority for re-testing.

4.2.2.3 Deliverable(s):

1. Automated Unit Testing Report,
2. Contractor's Integrated Testing Results Report,
3. Installation and Testing Instructions,
4. Evidence of unit testing and integration testing;
5. Updated Design and Implementation Plan (if applicable),
6. Updated source code (if applicable)

Due Date: To be determined in accordance with the Contractor's Design and Implementation Plan.

4.2.3 Progress Review Meetings

The Contractor must attend weekly progress review meetings by teleconference and provide updates to the Technical Authority on progress towards completion of the deliverables. Progress review meetings shall be scheduled by the Technical Authority, and all pertinent details such as teleconferencing information shall be provided to the Contractor by the Technical Authority not less than 24 hours in advance. The Contractor must respond to inquiries pertaining to the completion of deliverables on an ad hoc basis.

The Contractor must prepare a Record of Discussion for each progress review meeting in .doc, .odf, or .pdf format and provide it to the Technical Authority electronically within 48 hours of the progress review meeting.

4.2.3.1 Deliverable(s)

Record of Discussion

Due Date: within 48 hours of the progress review meeting

4.3 Phase 3 (Optional):

4.3.1 Implementation Support

The Contractor will provide technical support to Canada, as the Solution is implemented on the production environment. The Contractor must make resources with the knowledge required to implement the Solution

on Canada's production environment available via telephone and email to Canada during the implementation of the Solution.

4.3.1.1 Deliverable(s)

Professional services in the form of technical support to Canada during the implementation of the Solution.

Due Date: To be determined in accordance with the Contractor's Design and Implementation Plan.

4.3.2 Software Documentation

The Contractor must prepare all Software Documentation for the Solution and provide it electronically to the Technical Authority in .pdf format.

4.3.2.1 Deliverable(s)

Software Documentation, consisting of, at a minimum, a technical specification for the Solution documenting the system architecture, subsystem design, and required configuration, in .pdf format.

Due Date: To be determined in accordance with the Contractor's Design and Implementation Plan.

4.3.3 Progress Review Meetings

The Contractor must attend weekly progress review meetings by teleconference and provide updates to the Technical Authority on progress towards completion of the deliverables. Progress review meetings will be scheduled by the Technical Authority, and all pertinent details such as teleconferencing information will be provided to the Contractor by the Technical Authority not less than 24 hours in advance. The Contractor must respond to inquiries pertaining to the completion of deliverables on an ad hoc basis.

The Contractor will prepare a Record of Discussion for each progress review meeting in .doc, .odf, or .pdf format and provide it to the Technical Authority electronically within 48 hours of the progress review meeting.

4.3.3.1 Deliverable(s)

Record of Discussion

Due Date: within 48 hours of the progress review meeting.

5. Constraints and Operational Environment

The Solution must be compatible with the Open Government website's existing digital infrastructure. See Appendix 1 to Attachment 3 attached.

5.1 Existing Open Government Website Digital Infrastructure

The Open Government website operates using the following open source tools, in compliance with the listed policies relating to websites for Canada.

- CKAN (Data Catalogue) – Licensed under the Affero GNU GPL v3.0 License;
- Solr (Search Engine) - Licensed under the Apache License 2.0;

- Drupal (Content Management System) - Licensed under the GPL v2 License;
- PostgreSQL (Relational Database Management System - Licensed under the Postgresql License.

Government of Canada's Web Experience Toolkit Relevant Policies to Canada's Web Presence (available at <https://www.tbs-sct.gc.ca/pol/index-eng.aspx>):

1. Directive on the Management of Communications
2. Directive on Official Languages for Communications and Services
3. Standard on Web Accessibility
4. Standard on Web Interoperability
5. Standard on Web Usability
6. Standard on Optimizing Websites and Applications for Mobile Devices
7. Guidance on Implementing the Standard on Web Accessibility

The Open Government website is currently housed on a mix of cloud and on premise infrastructure. Solutions must be compatible with infrastructure hosted on the Microsoft (MS) Azure cloud in the Canada Central or Canada East availability regions.

5.2 Open Source Code Repository

The Contractor must create and maintain a public repository for the project on GitHub during the period of the Contract. All updates to the Solution source code must be deposited on GitHub, as well as, the final Solution source code.

5.3 Design and Implementation Plan

Updates to the Design and Implementation Plan must be approved by the Technical Authority.

5.4 Licencing

Solutions developed (not pre-existing) for the challenge must be licenced under the MIT Licence. Where Contractors are leveraging an existing open source projects, adopting the parent licence of the open source software project is acceptable, where the licence is approved by the Open Source Institute. A list of approved licences is available at the following link: <https://opensource.org/licenses/alphabetical>.

6. Language of Work

English or French

7. Location of Work

The Work must be performed at the Contractor's site and Shawinigan, Quebec (Phase 1, article 4.1.2).

8. Travel

Travel will be required to attend the presentation event at the expense to Canada (Phase 1, article 4.1.2).

9. Review and Acceptance

9.1 Software Deliverables

Final acceptance of the software Solution will occur when all discrepancies, errors or other deficiencies identified in writing by the Technical Authority have been resolved, either through documentation updates, program correction or other methods approved by the Technical Authority.

9.2 Reports and Documentation Deliverables

Reports and documentation deliverables will be accepted when all discrepancies, errors or other deficiencies identified in writing by the Technical Authority have been corrected.

The Contractor must provide drafts all Reports and Documentation deliverables to the Technical Authority for review 10 business days prior to the specified due date. The Technical Authority will provide comments to the Contractor 5 business days prior to the due date.

All of the Technical Authority's comments to deliverables must either be incorporated in the succeeding version of the deliverable or the Contractor must demonstrate to the Technical Authority's satisfaction why such comments should not be incorporated.

If the Contractor requires additional guidance to produce an acceptable deliverable, the Contractor must arrange a meeting with the Technical Authority.

Appendix 1 to Attachment 3 Open by Default Infrastructure

1. Current Infrastructure

The Open by Default pilot is built on an infrastructure as described by the diagram below.

