Section II: Schedule of Requirements

eSourcing reference: RFQ/2018/7738

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TERMS OF REFERENCE
FOR THE BUILDING OF THE IATI VALIDATOR –
A robust online validation service providing validation
of publishers' xml files against the IATI standard

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Background:

The International Aid Transparency Initiative provides a standard publishing format for data on development cooperation and humanitarian aid to be share and compared by all. Using transparent, good quality data helps efforts to achieve sustainable development. IATI sets the standard for the way information is reported so it is easier to plan, track and compare the progress and outcomes of different projects and activities. IATI data is 'open data', so it can be used by anyone for any purpose.

Accessing and using the best available data is crucial for informing effective decisions to promote development and provide essential support in the face of humanitarian crises. Access to IATI data is an important planning aid for developing and donor country governments. It enables academics, politicians, campaigners, journalists, and members of the public to understand how development and humanitarian resources are used. It also gives them the information they need to hold to account those who provide or use aid funding.

This is an open tender for the building of the IATI Validator - a robust online validation service providing validation of publishers' xml files against the IATI standard. The tender includes the development of the product as well as its hosting for the first year of operation.

Submission:

Please note that no cost associated with the required services should be disclosed in the technical proposal..

The bidder should provide:
- A summary of the key work that their organization has done using the IATI standard to demonstrate their knowledge and experience of the IATI standard.
- Details of the team they have at their disposal to carry out this work
- A detailed technical proposal that takes into account, the terms provided in this document.
- Proposed timelines for completing both phases of development (as outlined below)
- A financial proposal containing costs for hosting and maintaining the IATI Validator.

Objective:

We need to provide a validator that identifies all errors in publishers' data, to enable them to correct it to contribute to improvement in IATI data quality.

- A publisher user that submits a file needs to know if they have created the file correctly and if they are using the correct format. They want to make sure they are publishing against a valid and existing version of the Standard and if all the elements they have submitted exist within that version; they also need to make sure that they have submitted all the mandatory elements and, if they are using a custom vocabulary, it's in a valid format useful to others as well. If they're mentioning objects by identifier, they need to make sure the identifier they're using exists within IATI (eg: org). For each piece of data submitted, they need to make sure the data submitted is comprehensive and meaningful. In case any of the above fails, they need to know what the mistakes are and where they find it in the file submitted. They need to make sure they know how to fix them as well as where the correct guidance lives in the reference site. If the same error appears multiple times across several activities, they would like it to be grouped so they can easily correct them efficiently. When the error is reported back, it should be clear, readable in human language and what the next steps are.
- For software developers, the validator must provide an accessible validation library, thoroughly documented, that can be accessed when developing a tool that makes use of it. They should be able to include and use the
- To showcase the validation library and its validation services, a front-end validation service should be built where publishers can upload files and gain actionable insights into their data quality.

Outputs:

The IATI validator should be delivered in three phases that run back-to-back.
- Phase One basic level validation
- Phase Two user friendly frontend validation service which actionable feedback for publishers
- Phase Three maintenance untill 31 December 2019

Phase One
- Allow submission of XML files only
- Notify the user if the file is not well-formed / valid or invalid XML
- Notify the user if mandatory elements from the Standard are missing
- Notify the user if there's version mismatch
- Work on all available versions of the Standard
- Automatically identify the submitted file's version
- Notify the user as to *where* an error occurs
- Notify the user as to *what* the error is
- Identify if a file is an *org* or *activity* file
- Validate against all criteria (*see annex document*)
- Validate against a Standard version
- Validate against a *Codelist* set
- Validate against all *Rulesets*

- Validate against all *Machine-Readable* rules
- Notify the user what went wrong, for each of the above
- Allow the user more than one option to publish the file (direct upload or link)
- Thorough and detailed documentation for users as well as developers

Phase Two
- Provide guidance on how to fix an error
- Provide a link to the Standard's page related to an issue
- Allow bulk-uploading of files (more than one file at once)
- Work asynchronously and email the results afterwards
- Allow for repeated errors to be grouped
- Check against additional guidelines and conditions (e.g.: hierarchy)
- Update the user with the completion % of the validation process

Phase Three: Maintenance/Hosting services

The bidder must undertake to host the IATI Validator for a period until 31 December 2019.

- Coding Standards
  - Code must be written following a style guide (adherence to the chosen language's conventions, with linters added to continuous integration checks).
  - Any third-party packages that are used should be well documented and well supported as well as comply with our licensing.
  - To be built under TDD principles:
    - Robust repeatable feature testing
    - Custom functionality must be unit tested (including examples of where there are edge cases in data, including mocking of HTTP requests)
  - Code should be as elegant and usable as possible (easy to debug, consistent, don't repeat yourself principle, easily extendable, no vendor specific technology)
  - A number of functions and processes used by the Validator are applicable to other IATI tools. The Validator should where possible, reuse existing IATI components/APIs.
  - The Validator should strictly follow the Standard as-is, without interpretation of rules and rulesets.
  - The code of the Validator will be published on GitHub with a GNU 3.0 open source license.
- System Architecture
  - The Validator must be easy to build and deploy (automate processes as much as possible).
  - The Validator must be a stand-alone product.
  - The Validator must provide a language-agnostic API layer.
  - It should live on a distributed system to account for potential downtimes.
  - It should account for a large user load and scale out.

- ○ It should be robust and secure (no single point of failure, prevention of attacks)
- Agile Management
  - ○ The proposal should adopt an agile approach to development which allows for reasonable modifications to the original specification based on feedback from the IATI secretariat and user testing
- Documentation
  - ○ Developer Manual
  - ○ Publisher User Manual
  - ○ Analyst User Manual

Timing:

The bidder should provide clear timelines for the proposed delivery of all phases of development and maintenance/hosting. While time is of the essence, the evaluation will seek to assess this against the quality of the product being offered, so the shortest timeline is not necessarily the most competitive.
Indicative timing phase:
Phase 1: 2-3 months
Phase 2: 2 months
Phase 3: period up to 31 December 2019.

Reporting and Testing:

The bidder should provide the following
- A technical specification (based on these Terms of Reference) – to be agreed with IATI before development work starts. Thereafter this will be a living document that can be subject to change by mutual agreement between IATI and the bidder.
- A project management plan that includes milestones at agreed points in the development which allow IATI to review progress
- A communications channel (e.g. Slack) for the development team and IATI to exchange queries and comments throughout the development cycle.