



Table of Contents

Table of Contents	2
Glossary	4
Executive Summary	5
Introduction 1. Background 2. Research methodology	9 9
Research findings	12
Data quality is one of several barriers to data use Awareness and accessibility	12 12
1.2 Accountability for data quality improvements1.3 Who is using IATI data?	12 13
1.4 Limited trust in IATI data, compared to provision at local level 2. What is data quality?	13 14
3. Improving data quality	16
3.1 Drivers for improving data quality	16
3.1.1 External drivers / pressure	16
3.1.2 Internal drivers	17
3.1.3 Feedback	18
3.2 Barriers to data quality improvement	19
4. Current feedback processes	20
4.1 Frequency of feedback	20
4.2 Type of feedback	20
4.3 Who provides feedback	21
4.4 Feedback channels	23
4.5 Barriers to feedback	23
5. Suggestions by respondents for future feedback processes	24
Recommendations	30
Recommendations to publishers	31
1. Enhance feedback at the point of data entry	31
1.1 Provide feedback during data entry	31
1.2 Provide visual feedback to those responsible for entering data	31
2. Enhance feedback from publishing team to those entering data	31
2.1 Regularly communicate feedback to those entering data	31
2.2 Review discrepancies or major outliers	32
2.3 Routinely communicate positive feedback	32
Establish feedback loop between publishing teams and focal points in local offices in partner countries	32
3.1 Publishing teams should review and analyse data that country offices share with partner country governments	32

Conclusion	41
7.2. Create a public feedback forum across IATI platforms	38
7.1 Create a feedback pop-up on D-Portal and the Datastore	37
7. Request and coordinate feedback from external data users	37
6. Establish targeted feedback to priority publishers	36
5.4 Use the data quality assessment more proactively	36
5.3 Increase visibility and usability of data quality assessments	35
5.2 Improve automated data quality statistics for each publisher	35
5.1 Provide automated feedback to publishers on major data quality issues	34
5. Enhance automated feedback to all publishers	34
Recommendations to the IATI Secretariat	34
4. Promote data use and invite feedback from internal users	34
3.3 Establish a process for sharing feedback from aid information management systems	s 33
3.2 Send Excel sheets with IATI data to country offices	33

Glossary

IATI International Aid Transparency Initiative.

IATI Data

Open data conforming to the IATI Standard

https://iatistandard.org/en/about/iati-standard/

IATI Datastore Central online tool to access IATI Data

https://iatidatastore.iatistandard.org/

IATI Discuss IATI Community Discussion message board

https://discuss.iatistandard.org

IATI Standard Internationally-agreed XML-based standard for data on international

development activities

https://iatistandard.org/en/about/iati-standard/

IATI Validator Tool for checking if data aligns with the rules and guidance of IATI

Standard

https://test-validator.iatistandard.org/

Aid Biannual independent index of the transparency of the world's largest aid

Transparency agencies, released by Publish What You Fund.
Index https://www.publishwhatyoufund.org/the-index/

D-Portal Development Portal, a user-friendly interface for accessing IATI data.

http://d-portal.org

DUTF IATI's Data Use Task Force, a multi-stakeholder group of IATI community

members who oversee the delivery of IATI's Data Use Fund.

GitHub A web-based platform used for collaborative software development

https://github.com

METIS2 Dashboard for monitoring the progress of development

activities funded by the Netherlands Ministry of Foreign Affairs

https://public.tableau.com/views/METIS2/Menu?amp%3B%3AshowVizHome=no&%3Aembed=y

NGO Non-Government Organisation

OECD DAC Organisation for Economic Co-operation and Development's

Development Assistance Committee

OpenAid Transparency Portal listing development aid projects supported by the

Dutch government and published as IATI Data.

https://openaid.nl

Executive Summary

In 2017 the International Aid Transparency Initiative (IATI) Members Assembly approved the creation of a Data Use Strategy¹. The strategy's aim is for "all stakeholders to know and trust IATI as a source of aid data and use it routinely to help achieve sustainable development outcomes".

In April-June 2020, Catalpa International undertook research in support of this strategy's Objective 2: Improve data quality, with the following focus: "Improve data quality and usability in order to assure users of its reliability, including through the development of feedback mechanisms". According to the strategy, improving data quality is not an end in itself, but a means to facilitate use of the data. As determined by the Terms of Reference (ToRs), "the recommendations... should focus on how communication between partner countries and publishers can be improved". However, the research aims to provide recommendations which can be generalised to be useful across all types of users.

Through examining the varied categories of data quality, the research examines the current state of feedback processes within the IATI ecosystem and then proposes a set of recommendations. At its heart, it emphasises one core finding: user feedback is a precious commodity, and in particularly short supply as far as IATI data is concerned. It is important not to waste this scarce resource by expecting users to identify basic data quality issues that could be picked up through other mechanisms.

Research methods incorporated a desk study and semi-structured interviews conducted in May 2020. In total 30 stakeholders were interviewed including publishers, partner country representatives, NGOs, and technical experts. This report discusses how different drivers, barriers and incentives affect data quality and the impact of current feedback processes on data quality. It concludes with comprehensive recommendations for how publishers and the IATI Secretariat can improve data quality.

The most significant drivers that influence data quality were identified as:

1. **External**: Publish What You Fund's Aid Transparency Index³, other advocacy organisations, and donor pressure;

¹ IATI - "Data Use Strategy (2017-19)": https://iatistandard.org/en/news/iatis-new-data-use-strategy/

² United Nations Development Programme - "IATI Data Use Fund - Theme 2: IATI Data Quality" (RFP/BPPS/2018/005): https://procurement-notices.undp.org/view_file.cfm?doc_id=150081

³ The Aid Transparency Index, produced every two years by Publish What You Fund, is the only independent measure of aid transparency among the world's major development agencies.

- 2. **Internal**: internal use of IATI data; established data quality mechanisms; data visualisation; and changes to a publisher's backend (IT) system;
- 3. **User feedback**: feedback allows those responsible for data entry to better understand the relevance of data quality and the priority needs of data users. Feedback could be technical or content-related. It sometimes results from personal and in-depth conversations between data users and data publishers.

The barriers to data quality improvement were identified as:

- 1. **Unclear guidance** on how exactly to represent a publisher's activity information in the IATI Standard;
- 2. **Limited feedback** from users of IATI data;
- 3. **Lack of financial resources** allocated by organisations to improve their published data;
- 4. **System constraints** that do not allow certain information to be captured, or impede automated IATI publication;
- 5. **Internal coordination**: personnel within organisations tasked with publishing data are not the ones responsible for entering data (who will know their projects best).

A lack of incentives was also found to significantly affect data quality improvement, despite the availability of feedback and known data quality issues. Strengthening the incentives of the Aid Transparency Index and the accountability to data users of publishers in response to receiving feedback, were both identified as key to the improvement of data quality.

The main part of the research focused on the feedback processes that affect data quality, identifying five main areas:

- 1. **Frequency**: Overall, publishers receive very little feedback on IATI data.
- 2. **Type**: The categories of feedback received by publishers range from feedback on content to feedback on technical issues.
- 3. **Feedback providers**: These include the most influential provider of feedback, Publish What You Fund, particularly through the Index. Other providers of feedback include colleagues, donors, technical "power users", the IATI Secretariat and D-Portal developers and automated tools such as the IATI Validator.
- 4. **Feedback channels**: Primarily personal emails, D-Portal's Feedback Forum⁴, and the IATI Discuss forum. Channels also include workshops with external stakeholders, brown bag lunch events with colleagues, and IATI meetings.

⁴ Hosted on Github Issues. The Tech Team within the Secretariat are responsible for addressing issues raised by users. https://github.com/devinit/D-Portal/issues

- 5. **Barriers to feedback**: Several barriers prevent data users from providing feedback, including:
 - a. The effort required to provide meaningful feedback
 - b. Lack of an official centralised feedback channel
 - c. Overall trust that providing feedback will result in resolution
 - d. Reputational risk to those that provide critical feedback

The report presents a detailed list of suggestions by research respondents on how to improve future feedback processes. On the basis of these suggestions, the research team makes the following seven recommendations.

Recommendations to IATI publishers

- 1. **Enhance feedback at the point of data entry:** Individual agencies should include validation in data entry forms so that data quality issues are avoided or detected at the data entry stage. Those entering data should be encouraged to preview their data through simple data visualisations. Those who know the projects best are often best placed to identify issues.
- 2. Enhance feedback from the publishing team to those entering data: Publishing teams should regularly communicate indicators on data quality to all colleagues to raise awareness of IATI and the relevance of good data quality, helping those responsible for entering data to track progress on the quality of data for projects under their responsibility.
- 3. Establish feedback loop between publishing teams and focal points⁵ in local offices in partner countries: Publishers should ensure that feedback loops exist between headquarters and officers in selected partner countries. The publishing team should ask focal points for a copy of the data they share with the partner country government, analyse and investigate data discrepancies. After addressing major issues, this process could be expanded to include counterparts in partner country governments, with improved IATI data shared in familiar spreadsheet formats. This process would gradually strengthen understanding of how a publisher's IATI data could be used to populate recipient country aid management systems.

⁵ In this context, "focal point" refers to those in publishing organisations (particularly donor organisations) who are responsible for reporting data to the government in the relevant partner country.

4. **Continue to invite feedback from internal users:** Publishers should continue to engage with colleagues within their agencies to promote the use of IATI data – both their own data and that of others – and invite feedback on data quality.

Recommendations to the IATI Secretariat

- 5. Enhance automated feedback to all publishers: Existing tools for automated feedback to publishers should be used and improved. Publishers and the Secretariat should be automatically informed of any major errors (e.g. where the data cannot be downloaded). Data quality statistics should be extended to cover more aspects of data quality. The overall data quality assessment should be better communicated to publishers and users in a visually more compelling way, for example by highlighting a simple summary of major outstanding issues.
- 6. **Establish targeted feedback to priority publishers:** The IATI Secretariat should establish criteria for which publishers should be engaged with as a strategic priority. This should identify a short list of 30 priority publishers, and establish a routine, systematic process for addressing major data quality issues with these publishers. This process could involve selected partner country governments for whom the data for a given publisher is a high priority.
- 7. Request and coordinate feedback from external data users: There are currently limited feedback channels for external users. There should be a feedback pop-up dialogue on D-Portal and the IATI Datastore, with data feeding into a central feedback tool. The feedback would be sent to a specific publisher and copied to the Secretariat to ensure it has an overview of user feedback. Users should have the option of keeping feedback private if necessary. However, the default should be for issues to be public. This central feedback tool could be integrated with the IATI Dashboard, depending on the outcome of the IATI Technical Stocktake. All issues that have not been marked as private would be visible, and other users would be able to post comments or questions to publishers.

The research confirms that feedback processes - in their many forms - are crucial to improving the quality of IATI data. However, user feedback alone cannot be expected to address significant issues in the quality of IATI data.

Introduction

1. Background

Since the launch of the International Aid Transparency Initiative (IATI) in 2008 more than 1,100 organisations around the world have published open data about their activities in the IATI Standard, which allows them to provide detailed information essential for decision-making and accountability. Over this period, many organisations have invested significant resources to improve their data. Despite these efforts, the use of this data remains limited and there are many challenges related to the accessibility and quality of data.

To address these challenges the IATI Board adopted a Data Use Strategy, with five intended outcomes:

- 1. **Objective 1: IATI Awareness Raising** Raise awareness of IATI as a source of aid data and develop a common understanding of the priority needs of different user groups
- 2. **Objective 2: IATI Data Quality** Improve data quality and usability in order to assure users of its reliability, including through the development of feedback mechanisms
- 3. **Objective 3: User-friendly IATI tools** Improve existing tools and develop new, user-friendly tools that help multiple actors access and use IATI data
- 4. **Objective 4: IATI User Guidance Material** Improve guidance, training and support for specific user groups
- **5. Objective 5: IATI-AIMS Integration** Promote integration of IATI data into partner country aid systems and processes.

In the first quarter of 2020 the IATI Secretariat commissioned Catalpa International to undertake research focusing on **Objective 2: IATI Data quality.** The research addresses the direct communication loop between data users and publishers with the goal of improving the quality and thus the usability of IATI data. The research considers the benefit that feedback from data users – particularly partner countries – may have in the broader context of efforts to improve data quality. Catalpa set up a research team of one lead researcher and two technical experts for this work.

2. Research methodology

This report presents the result of this research. The questions guiding this research were as follows:

- Who are the different types of IATI data users and what are their specific concerns around data quality?
- How can different types of feedback be channelled effectively?
- How best can different data users provide feedback? Which mechanisms and technical solutions should be adopted?
- How can feedback provided to publishers most usefully be provided, in a way that is likely to lead to improvements in data quality?

To answer these questions the research team undertook desk research of existing documents and studies related to data quality and conducted interviews with different stakeholders. Overall, 25 semi-structured interviews were conducted with 30 individuals in April 2020. It is worth noting that these interviews immediately followed the close of data collection for the Aid Transparency Index, which may explain some of the emphasis interviewees placed on the Index. The selection of interviewees was agreed with the IATI Secretariat and aimed to appropriately represent all main stakeholder groups, including stakeholders from non-English speaking countries.

In the course of this research, the consultants talked to several stakeholders within the Dutch IATI ecosystem, which provide a wide variety of perspectives, as publishers, active consumers of IATI data and active members of the IATI community. Some points, such as the automation of feedback, were stressed particularly, but not exclusively, by these stakeholders. The IATI ecosystem in the Netherlands is atypical and highly mature, compared to other countries. There are contractual requirements for implementing partners of the Dutch MFA to publish IATI data. Partly as a result, there are a large number of publishers, and a significant amount of resources that have been invested in supporting publication⁶. However, while it may be atypical, as a mature ecosystem, there is extensive experience in providing IATI data quality feedback. This experience can therefore provide some useful lessons, even if not all of these are generalisable to all contexts.

Only six individuals from partner countries were interviewed, the number limited by the restrictions resulting from the COVID-19 outbreak. Additionally, one respondent from another open data initiative was included to provide an informed external perspective. The distribution of the respondents is presented below.

⁶ According to the IATI Registry, 160 out of 1179 publishers (14%) are stated as having their "HQ Country" as the Netherlands.

Table 1: Distribution of research respondents

Category	Subcategory	N° Persons	N° Orgs	Partner Country Rep
Publishers	Bilateral publishers	6	5	0
Publishers	Multilateral publisher	3	3	0
Publishers	NGO publisher	1	1	1
Publishers	Technical experts advising publishers	3	3	0
Data User	Partner country government	4	4	4
Data User	Technical experts in aid management	2	2	0
Data User	Technical experts building visualisations	4	3	0
Data User	NGO users	3	2	1
Other	IATI Secretariat	3	1	0
Other	Other open data initiatives	1	1	0
Total		30	25	6

Given the relatively small sample size of this study, the research findings should be taken with caution, as it is not necessarily possible to generalise all findings. On some issues the findings have been triangulated with the findings of previous research, for example on the barriers to data use.

The following section contains the findings of this research. These findings are structured into five chapters:

- 1. Findings related to the broader discussion of data quality;
- 2. The nature of data quality in the IATI context;
- 3. Drivers of data quality;
- 4. Current feedback processes;
- 5. Respondents' suggestions for the design of future feedback processes.

The section is followed by the research team's recommendations for future feedback processes.

Research findings

1. Data quality is one of several barriers to data use

This chapter presents a discussion of issues surrounding data quality within the overall IATI data ecosystem.

The focus of the research was feedback processes, with a view to better data quality and increased data use by partner country governments. However, feedback processes are part of a larger picture. Potential data users can only provide feedback to data publishers if they are aware of the existence of IATI data and are able to access it.

Feedback processes are only helpful once people are aware of IATI data, are able to use data, and trust it to a significant enough degree that they are prepared to spend time trying to fix issues in the data, as they can see some potential benefit from doing so.

1.1 Awareness and accessibility

Many respondents stressed that there is still limited awareness of IATI among potential users, including staff in donor country offices and in government ministries in partner countries.

Many respondents also highlighted that IATI data is not easily accessible. Some felt that the IATI Datastore is not useful for non-technical users. One partner country representative stressed that data is more accessible now due to the new Query Builder⁷, though others considered it to not be user-friendly enough and not useful for their work. Most respondents without a technical background use D-Portal to access data but also explained that it was not very user-friendly. One respondent accesses data through the IATI Registry but sometimes found the links provided in the Registry do not lead to the data.

1.2 Accountability for data quality improvements

Accountability was also discussed in the broader context of data use and data quality. Data use and data quality have been on the agenda of the IATI community for many years. Several pilot projects and studies in recent years have raised these issues, and they have been the focus of many discussions at conferences and meetings of the IATI community.

Given this history, many respondents expressed a certain weariness in the interviews to share their views on the topic of this research. In their view there is not a lack of knowledge or a shortage of suggestions related to feedback and data quality but rather,

⁷ https://iatidatastore.iatistandard.org/querybuilder/

there is a lack of accountability for data quality and a lack of incentives to respond to feedback.

1.3 Who is using IATI data?

One finding of this research was that both publishers and the IATI Secretariat know relatively little about who uses IATI data, to what extent, and for what purpose. This finding is confirmed by other studies and documents resulting from the desk review. The Secretariat has recognised this challenge and prioritised it in its 2020 work plan. However, the research suggests that part of the reason for the limited information on who uses IATI data is the fact that at present, and aside from D-Portal, use remains very limited.

Data portals of publishers and D-Portal collect some statistics on usage, but these statistics do not seem to be analysed systematically or aggregated across publishers. According to the respondents, publishers at headquarters level have very little information about if and how IATI data is used after it has been published. The D-Portal team does some research on data use through Google Analytics and social media but, overall, knowledge about IATI data use remains limited. For example, publishers do not have information on how often and from which country their data is downloaded from the IATI Registry. The number of data downloads on D-Portal or the IP addresses of those downloading data are not recorded on D-Portal.

The interviews of this research and the review of other studies suggests that so far, most users seem to be within the publishing agencies. D-Portal collects general statistics on data use. There are about 1,000 visitors per week and the users are mainly from the USA, the UK and the Netherlands. For the Dutch data portal, users are also primarily from the Netherlands and other donor countries.

Use among partner country governments remains limited. However, respondents stressed that IATI is (or could be) relevant to them. The respondents from partner country governments and the technical experts advising them noted that IATI data is being used occasionally to validate the data received through manual reporting from publishers' local offices. In addition, for some of the respondents, IATI data is used to get a general idea of non-resident organisations (i.e. without a local office) that are implementing activities in the country. IATI data helps to guide staff in finance ministries on where to look for additional information.

1.4 Limited trust in IATI data, compared to provision at local level

Several respondents shared that as data users, they do not trust the data due to discrepancies between IATI data and data reported by development partners' local offices. Furthermore, perceived poor quality of some publishers' data can create doubts about the data quality of other data, especially given that there is no guidance on the

strengths or weaknesses of particular datasets. This can undermine the trust in IATI as a whole.

IATI data does not exist in a vacuum: there are alternate sources of data; though these sources of data also have their own issues with data quality. For respondents in partner countries, the local donor offices are still the main source of data for the purposes of aid management, even for IATI publishers. Respondents shared the challenges in current data collection practices.

Several representatives of partner country governments expressed their perception that data provision by local donor offices is not considered a priority. Local offices often use temporary staff for these purposes, resulting in frequent staff turnover and occasional vacancies in the position of donor focal point. In one country, staff of local donor offices were trained to enter project data into the aid information management system, but not a single development partner was following this request.

In spite of these challenges with collecting data at the local level, the data provided is still considered to be more relevant and trusted than the IATI data currently published by development partners.

2. What is data quality?

During the interviews for this study many respondents stressed that data quality was often discussed in too general terms to be actionable, or in too specific terms to be relevant for the overall discussion. Respondents explained that *Data Quality* has many different aspects and largely depends on user needs, and requested a clearer definition of data quality.

The research team identified a non-exhaustive categorisation of different issues that lead to data quality issues:

- **Technical errors**: data does not validate against the IATI schema; data does not conform to IATI code lists or rulesets;
- **Unclear guidance**: guidance and IATI rules are not clear, specific, and comprehensive enough. Organisations may interpret the same guidance differently.
- **Optional fields or guidance**: fields are not used, or guidance is not followed because it is not considered to be mandatory.
- Lack of incentives and accountability: issues may be known, but there is no pressure to fix these issues.

- Lack of staff or financial resources: addressing IATI data quality issues may not be a priority and therefore may not be allocated sufficient resources.
- **Data entry errors**: staff responsible for data entry may have entered incorrect information.
- Inconsistencies: IATI data and data from other sources differ, leading to lack of trust.
- No traceability: due to missing or incorrect organisational and activity identifiers.
- **Different business models**: IATI publishers have different business models and data users do not understand how the data is influenced by these differences, or publishers have not mapped their business model to the IATI Standard in the most appropriate way.
- Language barriers: Data provision and feedback options are mostly in English, which impedes the use of data and hinders the provision of feedback for non-English speakers.

Data quality issues may or may not be known to the publisher, and these issues may require different strategies and approaches to overcome. The analysis of the interviews suggests that there are four broad solutions to data quality issues, depending on the nature of the specific issue:

- Raise awareness of the identified issue to those able to resolve the issue;
- Create incentives to facilitate the resolution of issues;
- Introduce technical changes to the data, official guidance, and/or the Standard;
- Publishers allocate additional resources to address known issues.

Addressing one or two of these issues can lead to improvements in data quality, depending on the context; at other times, more fundamental changes are required. For some data quality issues it may be enough to raise awareness, for example by flagging issues to those responsible for data entry. The research found that often, publishers are willing to fix issues when they become known to them. In some cases, publishers may already be aware of issues, but only consider it necessary to fix the issue once users point it out. In other cases, while the problem may be well known by the publisher, the resources needed to solve the problem are not allocated and the incentives to solve the problem may not be very high. In such a case, feedback alone may not be enough.

Some respondents shared that users perceive that the problems they encounter are due to limitations of the IATI Standard. For example, some partner country governments shared that they need the actual currency conversion rate for financial data, particularly

for loans, where it is not sufficient to use a publicly-available exchange rate to get a good approximation of the actual rate used.

3. Improving data quality

The underlying assumption of this study is that feedback will actually improve data quality. This assumption was tested in the course of discussions with data publishers and data users. This chapter presents the findings of this research, divided into three sections:

- 1. **Drivers:** reasons for publishers to improve data quality;
- 2. Barriers: reasons why publishers may not improve data quality;
- 3. **Incentives:** incentives and disincentives to improving data quality.

3.1 Drivers for improving data quality

3.1.1 External drivers / pressure

This study found that external pressure is a major driver for improving data quality. The two main sources of external pressure are presented below.

The Aid Transparency Index: Respondents cited the Aid Transparency Index as the main driver for improving data quality among IATI publishers. The contribution by Publish What You Fund to improving publication and data quality has been confirmed by Honig and Weaver (2018)⁸. There was consensus among all publishers that the Index plays a major role in helping staff to get management support for data improvements. The ambition of senior management to obtain a good ranking on the Index leads to the provision of staff resources and financial resources to address data quality issues. Publish What You Fund's other ongoing advocacy work was also cited by respondents as an important source of feedback on IATI data quality.

The fact that the Index is a strong driver for data quality is clear. At the same time, the interview respondents also stressed some shortcomings of the Index. First of all, it does not cover all publishers (necessarily so, given the labour-intensive work of data collection)⁹. Secondly, as with any ranking, there is a risk that institutions who are being

⁸ Honig and Weaver (2018) - "A Race to the Top? The Aid Transparency Index and the Social Power of Global Performance Indicators": https://doi.org/10.1017/S0020818319000122

⁹ Only a subset of publishers are evaluated in the Aid Transparency Index. Only organisations with a budget to spend on aid/development of over \$250m per year are included. So, for example, NGO publishers are not included. The full donor selection criteria are available at: https://www.publishwhatyoufund.org/the-index/methodology/

ranked focus narrowly on performing well on the indicators rather than broadly on improving their transparency. This can lead to attempted gaming of the scoring; though it should be noted that innovations in the Index in recent years (particularly human sampling of documents and other indicators) reduce the scope for such gaming¹⁰. A third limitation is that the Index does not (and cannot) cover all possible data quality issues.

Some publishers cited that other civil society briefings, watchdog publications or meetings with senior management can be helpful to get leadership behind the agenda of improving data quality.

Donor pressure: In several cases, publishers suggested that the pressure imposed from their bilateral donors helps them to lobby internally for changes. Ideally, donor pressure is accompanied by support and by direct engagement between donors and publishers. In the case of the Dutch and British governments, implementing agencies are required to publish data to IATI. Their data is in turn reviewed and used in reporting mechanisms with their donor. However, respondents noted that donor feedback can sometimes be less helpful if it is too focused on compliance and not adapted to the specific context of the publishing agency.

3.1.2 Internal drivers

In addition to external drivers, internal drivers also impact the improvement of data quality. Four internal drivers were identified in this study.

Internal use of data: Discussions with different stakeholders suggest that when IATI data is used internally, discussions among colleagues about data quality happen on a continuous basis. Personal contact ensures both an understanding of the issues and accountability for progress. Likewise, the use of IATI data within an ecosystem of publishers can illustrate the benefit of good data and drive the improvement of data quality.

Established data quality mechanisms: Most publishers have at least some established mechanisms that support data quality improvement on a regular basis. These mechanisms include using the IATI Validator, and systematic analysis of specific quality issues in their IATI data by a task force.

Data visualisations: Data visualisations are also a driver for data quality. For one publisher the fact that data is public is itself a strong motivating factor. In other cases, publishers use visualisation themselves to find out if their data is published correctly and get in touch with the team responsible for the data visualisation with questions or feedback. Other respondents stressed the importance of being able to see data in a

¹⁰ On sampling: https://www.publishwhatyoufund.org/2018/07/sampling-sweetness-part-ii/

user-friendly interface. In the research, respondents referred primarily to internally created visualisations, rather than third-party visualisations.

New backend systems: As internal data management systems are upgraded, an opportunity may also arise to improve the publication process and data quality. In addition to in-house expertise and external consultancies, there could also be a role for the Secretariat to play in helping make recommendations that will lead to improvements in data quality. When such major changes are not planned within an agency, the improvements are limited to those data quality issues areas that can be addressed by small changes.

3.1.3 Feedback

Feedback was identified as both an internal and an external driver of improvements in data quality. Even if feedback is relatively infrequent, publishers value it as a positive driver for improving data quality and are keen to receive it. According to respondents, feedback has three functions. Firstly, it can **inform** publishers about specific data quality issues. Secondly, it can help publishers **prioritise** data quality efforts by identifying which data fields are most important to a specific user group. Finally, it can help **exert pressure** on publishers to make changes.

Communicating relevance of data: When staff who are entering data are not aware of how and by whom the data is used and which data fields are particularly important for a given user, they do not have an incentive to ensure the data quality is high. Without interaction between publishers and data users, publishers are providing data "blindly" and hoping that it is useful.

In one example given, a high-ranking representative of a partner country informed a publisher via a formal letter that their data was not entirely relevant at the local level. This feedback helped the technical team within the publisher to get management support to improve the data.

Feedback and personal engagement: Many respondents emphasised the importance of personal contact. Facilitating personal contacts and regular exchange between publishers and partner country government representatives allows publishers to better understand the needs of their counterparts within government.

A step in this direction is exemplified by one partner country representative who reported sharing the IATI data published by the headquarters of major development partners with their offices in-country and asking the local staff to validate the data. One respondent explained that feedback works when real people talk to each other. However, it was also noted that this kind of personal contact is hard to scale.

3.2 Barriers to data quality improvement

Respondents shared different barriers to improving data quality. Some are more technical in nature, or are related to resources. They are described in this section.

Unclear guidance: Guidance on IATI publication is not always clear and may be interpreted in different ways by different organisations. Some respondents suggested that the status of the guidance is not clear, particularly whether it is mandatory to follow the guidance. Additionally, publishers do not always map their business model to the IATI Standard in the most appropriate way.

Financial resources: For some publishers, the allocation of resources to improve their published data is a challenge. Publishing teams lack staff and/or financial resources to address known data quality issues. In one case the publishing team had to lobby internally for two years to get a consultant to help with a specific issue. If there is no willingness by senior management to invest resources in data quality, respondents explained, data quality cannot be improved.

Backend systems: Backend systems are not adapted to the IATI Standard and significant changes are needed to resolve issues. Major changes take time to implement.

Publishing process: The fact that those who are tasked with publishing IATI data are not the ones responsible for entering data is a challenge mentioned many times. Given the breadth of information published, one published activity may be the product of inputs from multiple teams and a collection of internal information systems. Respondents indicated that this creates a significant challenge in verifying the quality of their IATI data.

For example, some data is provided by finance staff who are not familiar with project activities and provide incorrect classifications. Likewise, the publishing team within an organisation may not be familiar with particular projects and therefore do not catch issues with the content of the data. They rely on internal or external feedback to point out these issues.

It was reported that it is frequently the case that those entering data (such as project managers) do not have a role in ensuring that their published project data is being presented accurately. Even when issues are identified, the frequency of publishing or internal process of making a correction to the data may result in extensive delays to end users.

Limited incentives to respond to feedback: Some respondents stressed that at the moment there is no accountability to data users or to providers of feedback, because much of the feedback is given in private (via email). At least in some of the cases where users provide feedback, they do not know what happens to that feedback. Also, it is

often the case that there are no consequences if feedback is not addressed or at least responded to.

4. Current feedback processes

This chapter describes findings related to the current feedback processes in place. It discusses the frequency, type, and source of feedback received. Finally, it describes feedback channels and barriers to feedback.

4.1 Frequency of feedback

Feedback on IATI data can take the form of providing feedback on the original source XML, or on representations of the data (for example, in d-portal or a public-facing website). Most publishers interviewed in this research did not have precise numbers for the frequency of feedback on their data, but most publishers receive very little feedback on their data, irrespective of the feedback channels used and the topics addressed in the feedback. Some publishers report receiving feedback of either kind less than 10 times a month; one publisher receives no feedback at all. Similarly, the d-portal team reported receiving very little feedback on data quality.

4.2 Type of feedback

The feedback received online by publishers falls into four categories:

- 1. **Content** What is your agency doing in country XY? Where can I find more information about Project Z?
- 2. **IATI in general** Who publishes IATI data? Where does the data come from? How can I interpret the data?
- 3. **Tools** The tool is hard to use! Where do I find specific information on a particular dashboard?
- 4. **Data quality** Why are there differences between published IATI data and other data sources? There is an error in Project XY. Data fields are missing.

Most feedback received by publishers is not related to data quality. If it is related, it often concerns discrepancies in the data. In addition, project staff may point out errors in the data. Feedback on data quality is given almost exclusively by internal staff members or by funders.

One publisher talked about positive feedback during the interviews. When the publishing team provides positive feedback on data quality to the desk officers and "celebrate" improvements on data quality, it is a strong motivator for desk officers to further improve the data they are providing. In this agency, positive feedback for good

quality is given internally by posts on the internal information system or via personal messages. Several respondents stressed that positive feedback is more motivating and helpful than negative feedback.

4.3 Who provides feedback

According to the respondents there are seven groups of stakeholders who provide feedback to publishers.

Index: As previously discussed, the Aid Transparency Index and discussions with Publish What You Fund around the data published by individual donors are the most impactful in terms of the power to motivate publishers to make changes in their data.

Other civil society organisations: Some publishers also mentioned other civil society advocates at the partner country level who provide feedback. This feedback influenced the prioritisation of data quality improvements within the publishing organisations.

Internal colleagues: The most frequent source of feedback for most publishers among respondents are colleagues within their own agency (at partner country level or at headquarters) who find issues in data visualisations. This category also includes publishers asking those developing data visualisations why their data is not on the visualisation. This is often related to errors in the data. On D-Portal it is often publishers who contact developers and point out errors. In one case the publisher stressed that "internal feedback" could also come from other government agencies.

Donors: In the Dutch ecosystem, the feedback from the Dutch MFA is very important as it is tied to contract compliance. This feedback is regular, systematic and has the power to motivate implementing agencies to improve their data. In this ecosystem feedback is sometimes given by the Dutch Ministry's open data helpdesk, by the helpdesk running OpenAid and by a local consultancy in partner countries supporting implementing organisations to publish IATI data. In addition, the provision of feedback is combined with the funding of concrete technical support by the ministry.

Power users: Power users provide relatively frequent and detailed feedback to publishers about their data quality. This group consists of a few IT experts within the IATI community that provide technical support to publishers or partner country governments. Many, though certainly not all, discussions on Discuss and on GitHub are among these users. Power users are able to motivate publishers to improve their data, particularly if improvements do not require major changes to backend systems.

The Secretariat and D-Portal staff: The D-Portal developers are a primary provider of feedback. The Secretariat receives all feedback that is sent through the email address provided on D-Portal and channels it to the publisher. The IATI Secretariat's technical team does not review the quality of the data provided by publishers in a systematic way.

However, if the technical team is working more closely with one publisher they review their data and provide feedback.

Researchers: The most frequent users outside the IATI community providing feedback or sending questions to the publishers are researchers and students. More rarely, there are also such users from the private sector.

Partner country representatives: Publishers hardly ever receive feedback from representatives of partner countries. Two likely reasons for this are that very few stakeholders in partner countries know of IATI, and very few partner country governments use IATI data. Some representatives of partner countries discuss data quality issues at IATI meetings or with members of the IATI Secretariat directly.

Automated feedback prior to publishing: Within publishing teams, the old and new IATI Validator and the IATI Dashboard are used to obtain automated feedback and to review data quality. In the case of the Netherlands, an advanced validator was built to further improve this level of quality checking. Implementing agencies for the Ministry of Foreign Affairs may receive automated emails on their data quality. This was being piloted at the time of writing.

Table 2: Feedback providers and receivers

Who provides feedback?	To whom is feedback addressed?				
	Data entry*	Publishing team**	Local office of agency	D-Portal GitHub Feedback Forum***	IATI Secretariat
Publishing Team	Regular feedback	No	No	No	No
Partner Country Gov	No	No examples in study	Rare cases, local offices often do not know IATI	No examples in study	Only through pilots or in the DUTF
Local office of Agency	No	Occasionally		No	No
Other internal colleagues	No	Occasionally	No examples in study	No	No
Donor	No	Yes	No examples in study	No	No
Power users***	No	Regular feedback, not often	Regular feedback, not often	Regular feedback, not often	Occasionally



- * For example, project officers or financial staff that enter data into source systems.
- ** Receiving feedback either through D-portal, through the generic agency email address, through the project data files or through personal contacts.
- *** https://github.com/devinit/D-Portal/issues
- **** D-Portal programmers, aid management consultants, data publication consultants.

4.4 Feedback channels

The study identified three different channels that are currently used to provide feedback.

Personal contacts: Colleagues or other external users who provide direct feedback to publishers use email. Relevant email addresses can be found within published activity data, data visualisation sites of publishers, as well as the IATI Registry. On D-Portal users who have questions related to the data are directed to the list of publishers on the IATI Registry, where donors often provide an email address. Those respondents who are very well connected in the IATI community know publishers personally and use this personal connection to provide feedback. Some respondents also provide feedback directly to publishers while attending IATI meetings and conferences.

GitHub and IATI Discuss: On D-Portal there is also a link to a "GitHub Feedback Forum". The IATI Secretariat also provides the IATI Discuss forum. The most active data users on these two sites are power users, from within the IATI Secretariat and the D-Portal team as well as a few other IATI technical experts. Most posts on the GitHub feedback forum are from the D-Portal developer team. There appear to be hardly any external data users, outside of the IATI community, that use Discuss to provide feedback.

Workshops and brown bag lunches: Several publishers shared examples of workshops they organise with potential data users either in partner countries or within their own agencies. One publisher organises information sessions about IATI at headquarters to inform colleagues. These events are generally held infrequently and only organised for a handful of publishers.

4.5 Barriers to feedback

This section will briefly describe the barriers to feedback that were shared by respondents.

Feedback requires effort: A main barrier is that providing feedback requires time and effort. In most cases accessing data is one of many tasks and responsibilities of data users and data users are not willing to invest time if the data is not crucial to them. The

reluctance to provide feedback will be even higher if there are no clear and trustworthy feedback channels.

Lack of feedback channel: Several respondents from partner countries shared that they do not really have a channel for feedback and when they had an issue they did not know who to turn to. A generic email address is not considered a reliable feedback channel for these respondents because they do not feel that their feedback will reach the right person.

Users generally will not pursue minor data quality issues or questions further, due to the perceived lack of feedback channel. For more substantial issues, they contact the IATI Secretariat – particularly if there is a personal contact. GitHub and IATI Discuss are not considered an appropriate feedback channel by most respondents, since a login is required and these platforms are perceived to be very technical.

Trust in the feedback process: As described above, data users who do not have personal contacts with publishers lack trust in the feedback process. There is no trust that feedback will be welcome and that it is likely to be read, rather than disappearing into a black hole as may happen through a generic email address. Data users particularly distrust the feedback process if there is no information on how and when they can expect a response.

Reputational risk: For some data users, providing public feedback on GitHub or IATI Discuss carries with it a personal reputational risk because their feedback may cause the perception of a lack of knowledge or a lack of understanding on the part of the data user. Others may feel that their comments are interpreted as the position of their organisation when they are not empowered to make such public statements.

5. Suggestions by respondents for future feedback processes

This chapter presents the ideas and reflections shared by respondents and captured during the interviews for this study. The subsequent section synthesises these suggestions into recommendations from the research team.

Distinguish between feedback types: Feedback can be given on technical issues in the data, on the content of the data, and on the accessibility of tools. Feedback processes should take into account the different types of feedback and channel them to relevant persons within publishing agencies – who are then able to address it. For example, in most cases the publishing team would not be able to respond to feedback or questions on the policy underlying an activity.

Invite feedback: Data publishers and data portals should communicate clearly that feedback is welcome, explain how it can be provided and how it will be dealt with.

Feedback should be easy: This is an essential requirement for any feedback process if data users are to be encouraged to provide feedback. Data users should be encouraged to provide feedback within the context of the data visualisation or tool they are using. Several times, users suggested integrating a simple feedback pop-up within D-Portal.

Feedback channel: Most publishers are happy with receiving feedback through email. Others are worried that it is easier to lose track of issues if they are going through an inbox. Some respondents stressed that it is very unlikely that users who are not part of the IATI "community" would write emails to generic email addresses.

Public or not public: Some publishers suggest a public feedback platform as it would increase the likelihood of garnering internal support for addressing issues within the publishing agency. A public platform would also provide an overview of the different issues that data users struggle with. One respondent suggested the feedback site of the UK Department for Environment Food and Rural Affairs¹¹ as an example that IATI could follow. If the feedback process is transparent it would also allow others to contribute to discussions on data quality, rather than discussions occurring on a solely bilateral basis (with the potential for different users to be making contradictory requests to the same publisher).

Other publishers are worried that public feedback would not allow them to engage with the data users in a direct way. Instead, a public feedback mechanism would require the publishing teams to get formal approval for each public communication or to phrase their communication in diplomatic ways. Respondents also mentioned that some users may be hesitant to provide feedback publicly.

Accountability: Many respondents stressed the necessity of information on the responsiveness of publishers to feedback and the extent to which they resolve issues in a timely manner. One data user argued that it is not acceptable for publishers to simply refer to lack of resources as a reason not to address a data quality issue in the mid- to long-term.

Maintain an overview of feedback: Several publishers highlighted that it would be very helpful to have an overview of all the feedback received for an individual publisher to allow for easier systematic follow up. There may also be common issues relevant for many publishers that need to be addressed. Several respondents suggested having a public list of data quality issues related to specific publishers. Such a list could fulfil the function of a "to do" list for publishers while at the same time increasing awareness of known issues when using the data. A public list would not in itself ensure that issues

¹¹ UK Department for Environment Food and Rural Affairs feedback site https://support.environment.data.gov.uk/hc/en-gb/requests/new

were resolved; there are a number of existing lists of data quality issues, for example, the IATI Dashboard¹².

Communicate the reliability of the data: Publishers should communicate the reliability of their data and any caveats or weaknesses. This would assist data users in evaluating the suitability of the published data to their needs and to adapt their use of the data based on the declared shortcomings. This would also increase the overall trust in the data because shortcomings in one data set will be less likely to be unfairly generalised to all data sets. One inspiration for this could be the publisher implementation schedules from the early years of IATI publication – now often found on the IATI Registry, but somewhat hidden – where publishers would explain the nature of the data they are releasing. Here there are also parallels with the Open Contracting Partnership, where publishers are strongly encouraged to develop a publication policy, providing information on the quality of their data. The policy should also include information on how to provide feedback.

Role of the Secretariat: Response varied on the role of the IATI Secretariat. Some do not see the IATI Secretariat as having a major role in feedback processes, as the Secretariat is not directly responsible for data publication and has limited resources. One respondent stressed that the primary responsibility to ensure feedback is acted upon lies with publishers and it is unfair and unreasonable to leave the challenge of creating functioning feedback processes to the IATI Secretariat.

Others see the Secretariat as an intermediary which can facilitate contact between users and publishers. The partner country representatives interviewed would prefer to channel feedback via the Secretariat, so they do not have to invest time or resources to identify the appropriate contact person within a given publishing organisation. For individual data users or partner country representatives, finding the right contact person and method to provide feedback requires a lot of time and effort.

The involvement of the Secretariat in handling feedback from D-Portal is a clear example of providing this coordination function; the historical example of IATI Data Tickets is another example¹³. One publisher stressed that they would like to know more about the concrete information needs of partner countries, and the IATI Secretariat may play a role in communicating this knowledge. This would involve a shift in focus away from increasing publication to focusing on ensuring that high-quality data is made available, according to user needs.

In the case of the Open Contracting Partnership (OCP), in addition to work on improving data quality, direct feedback is encouraged between data users and publishers because this helps publishers to engage in a dialogue with data users and

¹² http://dashboard.iatistandard.org/

¹³ https://discuss.iatistandard.org/t/the-iati-data-tickets-website-has-closed/950

better understand their needs. Such an approach necessarily requires the allocation of additional time and resources, including a concerted effort on behalf of the OCP to strengthen learning about data use and gain feedback on it¹⁴. Similarly, 360Giving have invested heavily in ongoing "data expeditions" with users¹⁵. These efforts require time, money, and concerted effort, on behalf of a central Secretariat.

Centralised or decentralised: The demand for an overview of data quality feedback – also across publishers – suggests the need for a centralised way of managing feedback. One publisher stated that she wants to oversee the communication around the IATI data published by her agency. Several respondents suggested that a combination of decentralised and centralised could be envisaged, for example by directing feedback from D-Portal to the publisher while sending a copy of the feedback to the Secretariat, and to a tool that others have access to. The Secretariat and others would have access to this information where required, but conversations between users and publishers can take place without significantly increasing the workload of the Secretariat in a way that could cause bottlenecks.

Connect feedback to visualisations: Most non-technical users use D-Portal and other data visualisations to access IATI data. Data users should be able to provide feedback directly on these tools without requiring navigation to other sites. Visualisations were also mentioned frequently as an indispensable tool to detect data issues by internal publishing staff. If the data is presented in a user-friendly way, those responsible for entering data, and therefore those with the strongest understanding of particular projects, are able to identify issues. The power of visual feedback was also among the lessons learned in the Open Contracting Partnership.

Feedback as part of donor relationships: Where donors require implementing agencies to report data in the IATI Standard the element of feedback on data quality can be included in the donor-recipient relationship. The Dutch Ministry of Foreign Affairs pilot initiative sends automated email reports to its implementing partners about the quality of their data. Its helpdesk and consultants provide considerable feedback on data quality and data publication processes to NGOs in the Netherlands and in partner countries.

Ad-hoc or systematic feedback: So far, publishers receive regular external systematic feedback only from PWYF. All other stakeholders provide feedback on an ad-hoc basis. During the interviews some respondents raised the option of a more systematic process of data quality assessment coordinated or undertaken by the Secretariat.

Several respondents mentioned the OECD DAC (Organisation for Economic Cooperation and Development's Development Assistance Committee) peer review process

¹⁴ https://www.open-contracting.org/impact-stories/

¹⁵ https://www.threesixtygiving.org/support/data-expeditions/

and suggested that there could be a comparable process for IATI data quality. For some bilateral and multilateral donors, IATI data quality could become one of the assessment criteria of the OECD DAC peer review.

In the Open Contracting Partnership, publishers receive systematic feedback from the Secretariat. This includes automated feedback from the validation tool as well as personal feedback from analysts.

It is important to recognise that the OECD DAC and the Open Contracting Partnership cover far fewer organisations than the 1000+ currently publishing IATI data. The OECD DAC has 30 member countries, and there are also 30 publishers in the Open Contracting Partnership as of May 2020. An obvious option would be for the IATI Secretariat to focus on a much shorter list (e.g. 30) of important publishers with major data quality issues.

Systematic analysis of data discrepancies at country level: Several respondents stressed the challenge of discrepancies between IATI data and data provided by country offices of publishers. These discrepancies undermine the trust in IATI data and are a serious challenge. To address this challenge respondents suggested establishing mechanisms that look at these discrepancies in a systematic way. An option for such a feedback process is planned by one partner country government, where the officer in charge of aid coordination envisages sharing data published by headquarters with the local office of the same agency and then asking for validation and comparison. This would allow the staff of the local office to learn about IATI and clarify potential discrepancies. Another option would be for a publisher to send a clean version of its IATI data to the aid management units of selected partner countries. A third variation of this approach is currently planned by one publisher. The publishing team of this agency will conduct a workshop with their local staff in selected countries to look at data discrepancies and to better understand the nature of these discrepancies.

In one partner country, local staff of publishers are required to enter data directly into the aid information management system. This process allows for a comparison between the publishers' internal databases, local project knowledge, and IATI data. The officers responsible for data entry can try to find the IATI data for the activity they want to report on and choose whether to import the whole data sets or individual data fields from IATI into their report. This technical solution allows the local staff of publishing agencies to use IATI data and to reduce their own workload. Such an approach could be extended to include feedback to headquarters about data quality, discrepancies, and publishing approaches.

Automated feedback: The discussion around feedback mechanisms should include the topic of requiring automated feedback prior to publication. The earlier that basic issues are identified, the better. Some publishers use internal tools to validate published data

against IATI schema and rulesets. However, these are not part of a common public toolchain.

While it is clear that the new IATI Validator cannot cover all data quality issues, it could check for compliance against extended rulesets – for example, whether basic information is provided in the language of the recipient country. Publishers expressed the desire to adapt the Validator to their internal publication rules. The Dutch Ministry of Foreign Affairs is piloting an extended version of the Validator that allows broader data quality checks.

The Validator could also be leveraged as a part of an "early warning system" in flagging major data quality issues through automated alerts – for example, where the data cannot be downloaded or fails schema validation. A large part of this functionality already exists in various places (the IATI Dashboard¹⁶, IATI Canary¹⁷), but providing a simpler user experience to access information (and receive email alerts) would improve the extent to which this information would be acted upon.

These recommendations are in line with the practice of the Open Contracting Partnership, where the validator provides extensive feedback to data publishers. This leaves more time for the analysts of the Open Contracting Partnership to engage with publishers on the data quality issues that cannot be detected by the validator.

Align D-Portal with IATI corporate design: The general design of D-Portal is outside the scope of this research. Several respondents stressed that D-Portal is the best way to access IATI data at the moment – compared to the other options. However, respondents suggest there is still a lot of room to improve the usability of D-Portal. Users suggest that D-Portal should follow the corporate design of IATI to underline its link to the "official" IATI institutions and to increase trust. For most external users, D-Portal is their only access to IATI data, so it is strongly recommended to invest resources to understand current barriers to use, and allocate resources to further improve the functionality and design of the site. More research on current limitations would be needed.

¹⁶ http://dashboard.iatistandard.org/download.html

¹⁷ https://iati-canary.herokuapp.com/

Recommendations

Based on the findings from the interviews, the suggestions shared by the respondents and approaches to feedback in other initiatives, the research team has developed seven recommendations for publishers and the IATI Secretariat.

The discussion on feedback should not be limited to feedback by external users to publishers. Casual users of IATI data should not be the ones left to discover and have to point out major data quality issues; these issues should be addressed much earlier in the pipeline. If users' first experiences of IATI data are major issues with the quality of the data or the functioning of the tools, they are likely to be left with a bad impression and there is a risk that they may not return.

Seven different feedback loops should be considered to improve the quality of IATI data, as illustrated below. The numbers in the visualisation below refer to these seven feedback loops and are described in more detail in the subsequent sections.

Publishers IATI Secretariat: Automated External HQ: Data Entry Validation Feedback from Validator and Data Store 5 **HQ: Data Entry Feedback** HQ: Internal (4) HQ: Publishing IATI Secretariat 7 External User **Data Users Team Country Office D-Portal Focal Points**

Figure 1: Feedback loops to improve IATI data quality

These feedback loops are described in the recommendations below. The first four recommendations are under the control of the publishers and the remaining three recommendations are directed to the IATI Secretariat.

Recommendations to publishers

1. Enhance feedback at the point of data entry

1.1 Provide feedback during data entry

Staff entering data should receive automated feedback on data quality during data entry. Such automated feedback could include the analysis of the data for outliers or mismatches. Improving the user interfaces of back-end systems will improve the quality of data that is eventually published. Where there is no single project management system, but rather a number of different, often overlapping systems (as is often the case for legacy systems), additional guidance issued by publishing teams may help. In this case, recommendation 2 will become even more important for picking up data quality issues from disparate systems.

1.2 Provide visual feedback to those responsible for entering data

Those responsible for particular projects should be regularly invited – perhaps every quarter or every six months – to review their data on the agency website (or D-Portal), and encouraged to check their data is correct. Where possible, links should be provided to a specific list of projects that are relevant to the individual, rather than to a general overview.

A substantial part of the current feedback is provided by those responsible for entering data on projects, when they see the public version of their data. Many respondents stressed the importance of those responsible for data entry seeing a visualisation of their data. Visualisations enable them to quickly pick up major errors that remain otherwise undetected. That the visualisation is (eventually) public also adds an incentive to make sure the data is correct, and the project is not misrepresented. Other basic statistics on the data might help pick up outliers -- for example, extremely large or negative transactions.

2. Enhance feedback from publishing team to those entering data

For all publishers interviewed in the course of this study, the feedback loop between the publishing team and those responsible for entering data already exists. But there are differences in how this loop is maintained.

2.1 Regularly communicate feedback to those entering data

Publishing teams should provide systematic feedback to those responsible for data entry, including a simple overview of how the individual's data quality compares to the average for their organisation (or how it compares to that of their colleagues or other departments). The new IATI Validator could be used to generate some version of this

report. Showing a trend over time could help demonstrate progress and motivate improvement.

A good example of this is in the Dutch context. Publishers use an extended version of the IATI Validator, which sends out automated messages to implementing agencies, providing an overview of data quality issues for that organisation. This experience could be applied internally within a publishing organisation.

2.2 Review discrepancies or major outliers

In addition to the automated data quality analysis, publishing teams should review their published data for major outliers or issues in the data, and engage directly with those responsible for entering data to check and correct major issues. Existing tools such as the IATI Dashboard could be used to identify some of these issues.

2.3 Routinely communicate positive feedback

The publishing team should provide a routine update on good quality data and examples of how it is being used. This could also have a personal dimension, depending on the context. Posts on improved data quality by particular teams or departments could be shared on the intranet to celebrate the improvements. Agency leadership could also highlight continuous improvements in data quality to all staff members, thus stressing the importance of good data quality.

3. Establish feedback loop between publishing teams and focal points in local offices in partner countries

Discrepancies between IATI data and data provided at local level represent a major barrier for data use. However, they also present an opportunity for improving understanding of the way data could be used at country level, as well as identifying potential issues in IATI data. For this reason, publishing teams should establish a feedback loop with focal points in selected country offices.

3.1 Review and analyse data that country offices share with partner country governments

Publishing teams should request that focal points in selected country offices share the data that they (the focal points) are routinely providing to the partner country government. The publishing team should analyse this data, identify discrepancies with IATI data and examine the reasons behind these discrepancies. The analysis of the publishing team should then be used for a discussion with the focal points to better understand how such discrepancies arise, how to avoid them or how to improve the communication around them. It could, for example, identify data entry issues, or issues with the way the data is being generated by the publishing team.

As this process would be resource-intensive to conduct for all countries, publishers should select a representative sample of countries, including IATI member countries where appropriate. This would likely identify common issues in the IATI publication across many or all countries, given the fact that most large organisations publish their IATI data in a common way for all the countries they work in.

3.2 Send Excel sheets with IATI data to country offices

Preferably after reviewing existing data that the country office shares with the government, the publishing team should send a clean and user-friendly Excel sheet with IATI data for that country to the respective focal point on a quarterly basis. The format and quality of the Excel data should be iteratively improved based on feedback from partner country focal points. This would simultaneously raise awareness of IATI with each focal point, encourage focal points to make use of IATI, and lead to a discussion between the publishing team and the focal points about the reasons for discrepancies. This exercise would provide valuable learning, but it would also make IATI data immediately useful for the country office and the partner country government receiving the data. One publisher is already planning such an exchange with local staff in two partner countries. The lessons learned from this exercise should be shared with the IATI community.

3.3 Establish a process for sharing feedback from aid information management systems

There are currently few countries where publishers can use IATI data in aid information management systems. However, in these countries, publishers and the IATI Secretariat should begin to gather information on the extent to which these systems use IATI data. This recommendation is addressed here to publishers, as publishers are often requested to use these systems, and also because donors often fund these systems.

In Somalia, focal points of publishing agencies are requested to enter data into the aid information management system. The tool allows the focal point to look at IATI data and identify their projects during data entry. For each data field, focal points can choose to use the available IATI data or to manually enter data. This approach raises awareness about IATI and potential data discrepancies, or unhelpful publishing approaches. Collecting usage statistics on the extent to which users choose to use available IATI data would help to identify areas where there are general issues across IATI publishers, or issues for particular publishers.

Over time, it would be worthwhile investigating the option of providing structured feedback directly from this process to publishers, regarding which specific fields are used and which aren't. Publishers could even receive information on the data that was manually entered in preference to the published IATI data, so that the publisher's own

data could be corrected. This could potentially integrate with the feedback process outlined in recommendation 7.

4. Promote data use and invite feedback from internal users

The internal use of data within publishing organisations is a very strong driver for data quality. Publishing teams should promote the use of data by internal users, and invite feedback from internal users. Importantly, while the data that is being promoted should be based on the same data that is published to IATI, it may often not be helpful to focus on the technical workings of IATI. Where relevant, staff could also be encouraged to look at peer or partner organisations' data, and consider how such data could be useful in the course of their own work. A good example of making other organisations' IATI data useful for internal purposes is USAID's Development Cooperation Landscape¹⁸.

Communication measures may include blog posts or intranet posts on the type of information that the agency is making available, explaining how it could be useful to internal staff. Communications by agency leadership should celebrate achievements and highlight the importance of data quality. Workshops with potential internal data users could also help to strengthen internal use of data and identify challenges and areas for improvement.

Recommendations to the IATI Secretariat

5. Enhance automated feedback to all publishers

During the study a number of stakeholders had strong opinions on the value of various tools. Many respondents suggested that the IATI community should make more use of tools to identify data errors and help publishers improve their data. Conversely, other respondents warned that a discussion about tools will not solve the problem of data quality.

On the basis of these varied discussions, the research team recommends both improvements to tools (particularly in terms of user experience) and improvements to process and incentives to strengthen the value that is obtained from these tools.

5.1 Provide automated feedback to publishers on major data quality issues

At the moment, major errors can occur in data that make the data unusable without the publisher or anyone else being informed of this. For example, a file may suddenly fail validation and therefore not be imported into the Datastore, or the files may have been

¹⁸ https://explorer.usaid.gov/donor

moved or deleted from the publisher's server and therefore are impossible to download. A warning message should be sent to the Secretariat and the relevant publishing team as soon as such problems occur. The allocation of additional resources may be required by both the Secretariat and publisher to ensure that these alerts are periodically reviewed and responded to in a timely and appropriate manner.

5.2 Improve automated data quality statistics for each publisher

The IATI Secretariat is already publishing statistics on data quality for each publisher on both the IATI Dashboard¹⁹ and the new IATI Validator²⁰. Data quality statistics should be extended to cover additional data quality issues that can be assessed in an automated way. For example, the data quality assessment could include whether organisations report valid organisational identifiers for funding and implementing agencies, if data is made available in the language of the recipient country, and if titles and descriptions have a minimum length. This would supplement existing indicators measuring timeliness, comprehensiveness, and forward looking data. Work under this recommendation could be covered through the Strategic Plan commitment to "establish metrics and use the IATI Dashboard to measure progress more effectively and assist publishers to publish better data".

5.3 Increase visibility and usability of data quality assessments

It is important that data users are aware of the data quality of specific data sets. The existing data quality assessments should be visible in those places where users access the data.

Respondents had very strongly different views on the extent to which the data quality assessment should be presented as an overall score. On the publishing statistics site, data quality is already aggregated into an overall score; this score could be communicated in a way that better informs data users of the publisher's data quality, and trust in IATI data is enhanced. A more proactive communication of this score would also create an incentive for publishers to improve data quality.

An important way to improve communication would be to improve the user experience and navigation among different tools providing information on data quality. Whether or not an overall score is prominently provided, the Publishing Statistics, Dashboard, and Validator should present a consistent and clear user experience in line with the proposals of the 2020 IATI Stocktake. Major and priority issues should be highlighted clearly on a single page for each publisher. This should be simple to understand for non-technical users, while providing the depth that more technical users need to understand issues in more detail.

¹⁹ http://publishingstats.iatistandard.org

²⁰ https://test-validator.iatistandard.org/

5.4 Use the data quality assessment more proactively

The data quality assessment should be communicated more proactively to members by the IATI Secretariat and the IATI Board. Several respondents have suggested that an assessment of IATI data quality could be part of the OECD DAC peer review process or be subject to a similar peer review process. In such a process the statistics would be communicated to and discussed with leadership-level agency staff. The IATI Secretariat and the IATI Board could consider this option and approach the OECD members among IATI publishers with this proposal.

6. Establish targeted feedback to priority publishers

The tech team within the IATI Secretariat currently responds to all requests for support. While this may be very helpful for smaller NGOs with low technical capacity, it is not in line with the overall strategy or the data use strategy of IATI, since support resources can be tied up with the publication of data that is of minor value to data users.

The Secretariat should establish a strategic approach to data quality, targeting priority publishers. The Secretariat should propose a set of criteria by which organisations would be prioritised. The criteria could be based on the size of the organisation, which organisations have the most serious issues in their data, or the major donors of IATI members from the partner country constituency. Alternatively, it could intentionally include a variety of publishers. The number of priority publishers should be limited to 30 organisations, in line with the approach of other initiatives. Where appropriate, it could combine private and public communication to enhance the incentives to improve data quality. The IATI Secretariat should reach out not only to the publishing team of these organisations, but also to management, in order to ensure that sufficient resources are made available. This process could involve selected partner country governments for whom the data for a given publisher is a high priority.

In the past, the Secretariat had a priority list of publishers who represented a large share of the financial volume of development cooperation. The purpose of that priority list was to help these priority publishers to improve their data. According to the Secretariat, only some publishers were responsive to this offer, and this approach was discontinued. The Secretariat should review the experience of the priority list and identify options to modify this approach in such a way that publishers become more responsive.

If the focus on priority publishers does not lead to significant take-up on the part of those publishers, an alternative would be to focus on specific data use barriers and work with all publishers. For example, the IATI Secretariat could have a campaign focusing on missing recipient organisation details or location information. Publishers could be contacted and asked to address these issues one by one. As one respondent noted, this

could also raise awareness about the challenges that particular data quality issues raise in terms of data use.

Resource requirements: Improving data quality is a key priority for IATI according to the IATI Strategic Plan. However, it would not be reasonable to expect the existing staff to be responsible for taking on this additional work. It is recommended that the Secretariat hire a Data Quality Manager to lead this work. This is also the approach taken by the Open Contracting Partnership.

Moving the routine feedback provision from the IATI Secretariat to external support providers would have implications for the extent to which various publishers were able to access support. On the one hand, it could strengthen the IATI ecosystem in new ways and allow the Secretariat to focus on other tasks, including learning and engagement with external users. Any remaining resources available for publisher support could be much more targeted and strategic. This would have financial implications for certain publishers. The alternative would be to significantly scale up the central resources of the Secretariat, which would require a greater financial contribution from members and would not be able to draw on some of the benefits of market competition.

7. Request and coordinate feedback from external data users

This report has outlined a number of ways in which existing tools and processes should be improved to strengthen data quality through various feedback processes. However, the interviews also made clear the importance of a more systematic and clearer mechanism for collecting and tracking user feedback from external users.

7.1 Create a feedback pop-up on D-Portal and the Datastore

Create a pop-up dialogue: External users should be able to provide feedback on data quality on all sites where IATI data can be accessed. D-Portal is the site that is used by all non-technical respondents in the study to access IATI data. At the moment, there are several feedback options at the bottom of the website, but they are relatively hard to find and respondents were often not motivated to provide feedback. There is currently no feedback option on the IATI Datastore, apart from emailing the IATI Secretariat's technical team.

A pop-up dialogue should be added to D-Portal and the Datastore which allows users to share feedback in a very simple way. This dialogue should be accessible from each page on D-Portal. All feedback received would feed into a central feedback tool (see 7.2).

Direct feedback from data users to publishers: It is anticipated that user feedback would generally be related to a particular publisher's data, so it should be possible for the feedback to be sent directly to that publisher. If a user is looking at a particular publisher's data, the form should prompt the user to confirm that their feedback is related to that particular publisher. Feedback would be copied to the IATI Secretariat to

provide them with an overview and to identify overarching issues that need to be addressed. Users should also be able to request a response from the publisher.

To some extent this feedback loop already exists²¹. At the bottom of activity and publisher pages on D-Portal there is a link that allows users to contact publishers directly. For some publishers this link works and takes the user to the publisher page on the IATI Registry. For other activities, the user is instead directed to the list of publishers on the Registry.

Unless the user chooses otherwise, the default should be for all feedback to be public, in order to inform other users and publishers about the core data quality challenges, but also to help share positive stories where these are provided by users. (See recommendation 7.2.)

In the pop-up dialogue, natural language processing tools could be used to help the triaging of feedback to either publishers or the developers. This approach should help keep barriers to providing feedback low, while providing some triaging and structure to issues to simplify the management of feedback.

7.2. Create a public feedback forum across IATI platforms

Many respondents suggested that feedback from data users should be transparent, similar to the websites where citizens can make Freedom of Information requests. A public feedback forum should be created. It would provide the back-end to the pop-up dialogue proposed in recommendation 7.1. The IATI Dashboard may be an appropriate home for this additional information, given that it is currently the main portal for accessing frequently updated data quality indicators on IATI data. The feedback forum should be directly accessible through D-Portal. Users should be encouraged to provide positive feedback to publishers and to highlight these specific and positive cases without requiring only one-off case studies, which can be both expensive to undertake and not easy to keep up to date as progress is made and issues are resolved.

Focus of the feedback forum: Based on the research in this study, the research team recommends that the feedback forum should focus initially on two of the types of feedback outlined in Findings, chapter 4.2: data quality and tools. The other types of feedback (questions on IATI or a publisher's activities more generally) probably lend themselves better to alternative, existing mechanisms of communication, such as email.

Initial structure: initially, we would propose that the feedback forum is not heavily structured. This is for two reasons: firstly, because it would lower the burden of data entry and data curation, and secondly because it would be preferable for the structure of the feedback forum to gradually be developed based on actual feedback being received, and dependent on the need for more structured feedback.

²¹ https://github.com/devinit/D-Portal/issues/437

The feedback form should initially have the following fields:

User-provided fields (requested in the following order)		
Name of field	Notes	
User - name	The user's own name	
User - email	Not be public, but used for communication via the tool	
Name of publisher	Drop-down list of IATI Registry publishers [optional]	
Title of feedback	A short title for the user's feedback	
Text of feedback	A free-text description of the user's issue. Users would be able to use markdown, similar to GitHub issues.	
Public?	Y/N. Private feedback would only be visible to the user, the publisher, and the IATI Secretariat. Public feedback would be visible to everyone. Default: Y	
Response requested?	Y/N. Whether the user has requested a response from the publisher (or from the Secretariat, if no publisher is selected). Default: Y	
User - country	The user's country [optional]	

The public view of the feedback form would have several additional fields, most of which would be based on interaction of the publisher or other users:

Other fields			
Name of field	Notes		
Date/time of feedback	Automatically generated.		
Publisher acknowledged	A publisher could acknowledge receipt of an issue		
Issue resolved	A publisher, the user or the IATI Secretariat could mark the issue as resolved, or reopen the issue.		
Comments	Other users could comment on a particular issue.		

Building a new tool or using something existing: The fields outlined above are not dissimilar to the existing GitHub feedback forum used for D-Portal. However, the research found that users were generally not keen on using a third-party service such as GitHub which requires a sign-up to interact with. Additionally, given the complex user experience of existing data quality and statistics tools, it would be important to provide a more integrated user interface. For this reason - but also because the

proposed interface would initially be very simple - we would recommend developing a new tool.

Technical framework: The feedback tool should be integrated with the proposed validation architecture at an appropriate date. Depending on the decisions in the IATI Technical Stocktake, the back-end of the feedback tool could either be a separate micro-service, or alternatively a small extension of an existing code base (perhaps the Validator, as the IATI Dashboard does not have a database behind it). The front-end should be part of the integrated data quality interface envisaged as part of the Stocktake. Authentication should initially be provided simply by verifying the user's email address, but could eventually be enhanced to use the same login credentials as other IATI services (perhaps beginning with IATI Discuss), in line with the IATI Technical Stocktake.

We would recommend an initial small, simple and tightly focused implementation along these lines, before reviewing the need for any further development.

Resource implications: One challenge with this approach could be the additional resources required for triaging and categorising feedback received if the amount of feedback suddenly and significantly increases. The resource implications could be reduced through an intelligent combination of natural language processing and additional questions on the data entry side (allowing for the user to categorise their input where possible, but not requiring this). In addition, the collective interest of the IATI community could be engaged by encouraging members of the community to review and comment on feedback.

However, ultimately, such a forum would benefit from curation by the Secretariat. The Data Quality Manager proposed in recommendation 6 would be an obvious candidate for reviewing and managing inputs from various users, as well as periodically following up with publishers regarding outstanding issues. Finally, the resource implications should be viewed in the context of the importance attached to improving data quality by the IATI Strategic Plan and the continuing barriers it creates to increasing use of IATI data. The IATI Board should ensure that sufficient resources are allocated to this work.

Conclusion

The research on IATI feedback processes confirmed that well utilised feedback mechanisms are essential to improving the quality of IATI data. While there is very limited feedback on the quality of IATI data, publishers indicated a strong desire to receive more feedback, both internal and external.

A key area to focus on in future is to strengthen internal data quality controls and feedback processes within the publishing agencies themselves. Some of this may take more time (such as improving data entry tools), but there are also low-hanging fruit, such as engaging with country offices to understand the nature of data shared with the government. Automated and targeted assessments should be used by the Secretariat to work with publishers to improve the quality of their data.

The recommendations of the research team represent possible ways to make it easier and more attractive for external data users to provide feedback. Respondents stressed that organisations are made of people and that it is relationships that in the end often lead to the overall improvement in data quality. Accordingly, feedback should not be limited to negative feedback, but also include positive 'nudges' to encourage further improvements.

The IATI Secretariat should consider feedback processes in the broader context of incentives for publishers to improve their data quality: user feedback alone is not going to solve the many issues around data quality and around using IATI data. User feedback should be considered a precious commodity, and more should be done to ensure that users are not likely to face major challenges in using IATI data: if a user's first experience with IATI data is not a positive one, they may be unlikely to return.

However, with appropriately aligned incentives across stakeholders, strengthened feedback processes could contribute to the desired outcome of improving data quality, increasing data use and ultimately strengthening development results.