Open data policies

Guidance note 27 - Requirements 7.1.b, 7.1.c, 7.2.c, 7.2.d, and 5.1.b

Introduction

The EITI Principles recognise that “a public understanding of government revenues and expenditure over time [can] help public debate and inform choice of appropriate and realistic options for sustainable development” (EITI Principle 4). The EITI Standard therefore requires countries to publish EITI Reports that are “comprehensible, actively promoted, publicly accessible, and contribute to public debate” (EITI Requirement 7.1). Increasingly, the EITI is focusing on promoting systematic disclosure, i.e., that transparency become an integral part of how governments manage the sector. Rather than simply relying on the EITI reporting mechanism to bring about transparency, governments implementing the EITI should make the information required by the EITI Standard available through government and corporate reporting systems such as databases, websites, annual reports, portals etc.

To help realise these objectives, the EITI Board adopted an Open Data Policy to help improve the accessibility and comparability of EITI data. It also introduced several new requirements. The 2016 EITI Standard requires multi-stakeholder groups (MSG) to “agree a clear policy on the access, release and re-use of EITI data” (EITI Requirement 7.1.b) by 1 January 2017. The requirement also encourages MSGs to publish EITI data under open licenses1. A requirement that mandates EITI Reports to be available in open data formats (requirement 7.1.c) came into force on 31 December 2017. The focus on promoting systematic disclosure also implies that the participating companies and government agencies should develop their own open data policies.

Open Data

An added value of implementing EITI is to have comprehensive information on extractive industries in one place. This is an important role of EITI reporting. Open data is but one approach to ensure this information

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1 Open license means that the data is available for reproduction, modification, and sharing, without prior consent.
is disclosed in more flexible ways, and open data policies should therefore reflect the importance in ensuring data is disclosed in open formats.

Open data is defined by Open Definition as “data and content [that] can be freely used, modified and shared by anyone for any purpose.” The Open Data Charter (ODC) describes open data as “digital data that is made available with the technical and legal characteristics necessary for it to be freely used, reused, and redistributed by anyone, anytime, anywhere”.

The recurring theme is that open data is information which is accessible, a more precise definition than available. Accessibility implies that data is immediately available and continuously so, implicitly requiring it to be free of cost. While the EITI’s open data policy recognises that there is national and international legislation - in particular pertaining to intellectual property, personally-identifiable and sensitive information - which must be observed, MSGs are encouraged to adopt a level of openness that responds to the needs of data users.

**Encouraging systematic disclosure: Links between mainstreaming and open data**

The 2016 EITI Standard encourages systematic disclosure. Transparency should be an integral feature of how governments manage the extractive industries. Rather than simply relying on the EITI reporting mechanism to bring about transparency, governments implementing the EITI should make the information required by the EITI Standard available through government and corporate reporting systems (such as databases, websites, annual reports, portals etc).

In February 2018, the Board reaffirmed that implementing countries are expected to take steps to integrate EITI implementation in company and government systems. Systematic disclosure is the default expectation, with EITI Reports and data to be used where needed to address any gaps and concerns about data quality. This can help ensure that EITI activities are focused on addressing the biggest challenges of the sector.

The trend toward open data and systematic disclosures are mutually reinforcing. However, an emerging risk is that “EITI open data” portals are being developed independently of core administrative information management systems. This can lead to duplication and inattention to the strengthening the systems that the primary source and guarantor of reliable data. Open data policies in EITI countries have often focused

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4 The terms “mainstreaming”, “integrated reporting” and “systematic disclosure” are often used interchangeably. For the purposes of this guidance note, the terms systematic disclosure and integrated reporting are synonymous. They refer to the desired end-state, where the EITI’s disclosure requirements are met through routine and publicly available company and government reporting. This could include, public financial reporting, annual reports, information portals, and other open data and freedom of information initiatives. This should include an explanation of the underlying audit and assurance procedures that the data has been subject to, with public access to the supporting documentation. **Mainstreaming** refers to the process for realising this goal, which may include interim measures, pilots, and other capacity building activities. EITI websites would then increasingly be used as a portal for accessing these systematic disclosures, with EITI Reports disclosing information not available elsewhere.
on how to make the data in the EITI Report more accessible, while it is often more effective to review the open data policies and practices of the companies and government agencies that are the primary sources of data, and improving their open data policies will increase public access to data.

This Guidance Note suggests five steps that MSGs may wish to consider in developing an open data policy. Priority is given to low-cost opportunities to promote access, release and re-use of EITI data, drawing on examples from EITI implementing countries.
Requirements covering open data

7.1.b and 7.1.c Public debate.

The multi-stakeholder group must ensure that the EITI Report is comprehensible, actively promoted, publicly accessible and contributes to public debate. Key audiences should include government, parliamentarians, civil society, companies and the media. The multi-stakeholder group is required to:

b) Agree a clear policy on the access, release and re-use of EITI data. Implementing countries are encouraged to publish EITI under an open license, and to make users aware that information can be reused without prior consent.

c) Make the EITI Report available in an open data format (xlsx or csv) online and publicise its availability.

7.2.c and 7.2.d Data accessibility.

The multi-stakeholder group is encouraged to make EITI Reports machine readable, and to code or tag EITI Reports and data files so that the information can be compared with other publicly available data by adopting Board-approved EITI data standards. As per Requirement 5.1(b), the multi-stakeholder group is encouraged to reference national revenue classification systems, and international standards such as the IMF Government Finance Statistics Manual. The multi-stakeholder group is encouraged to:

c) Where legally and technically feasible, consider automated online disclosure of extractive revenues and payments by governments and companies on a continuous basis. This may include cases where extractive revenue data is already published regularly by government or where national taxation systems are trending towards online tax assessments and payments. Such continuous government reporting could be viewed as interim reporting, and as an integral feature of the national EITI process which is captured by the reconciled EITI Report issued annually.

d) Undertake capacity-building efforts, especially with civil society and through civil society organisations, to increase awareness of the process, improve understanding of the information and data from the reports, and encourage use of the information by citizens, the media, and others.

5.1.b Distribution of extractive industry revenues.

Implementing countries must disclose a description of the distribution of revenues from the extractive industries.

b) Multi-stakeholder groups are encouraged to reference national revenue classification systems, and international standards such as the IMF Government Finance Statistics Manual.

Source: EITI Standard 2016, p. 26 and 29-30
Step 1 - Review the accessibility of EITI data

Before considering options for an open data policy, MSGs are encouraged to assess the current situation regarding the access, release, and re-use of the data required by the EITI Standard. MSGs have often found it useful to consult typical users of EITI data on their needs and expectations (see Box 1).

There are two different aspects to consider here: The first is to consider whether the information required by the EITI Standard is routinely available in open data formats through government and corporate reporting systems. The second is to address the accessibility of the data that is produced through the EITI process overseen by the MSG.

The first aspect is linked to the concept of EITI mainstreaming or systematic disclosures as highlighted above. MSGs are strongly encouraged to conduct a systematic disclosure mapping or feasibility study to inform this work.

In many cases, the EITI is a primary disclosure mechanism. It is therefore necessary to consider whether the information collected through EITI reporting is sufficiently accessible. A survey by the EITI International Secretariat in 2017 noted that most EITI data continues to be “locked” in pdf reports that are difficult to access and utilise. This significantly undermines the scope for using EITI data to contribute to public debate.

Step 2 – Review national policies and international best practice on open data

The second step is to examine national policies and standards on open government and open data, and their alignment with international best practices. This helps ensure that the MSG’s work reinforces existing efforts. Relevant national policies can include relevant constitutional provisions, government legislation or policies on open government and open data, related legislation such as Freedom of Information Acts (FOIAs), and commitments made through other initiatives, such as the Open Government Partnership (OGP) and the Joint Organisations Data Initiative (JODI). For some MSGs, these provide a well-established platform for pursuing open data policies and disclosures. The OGP’s Open Government Declaration, for example, explicitly references a commitment to pro-active disclosures by government, and also specifies that disclosure of information is to be conducted in open data or machine-readable formats (see Figure 1).

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5 https://eiti.org/mainstreaming
6 https://eiti.org/document/mainstreaming-mapping-exercise
8 https://eiti.org/blog/survey-on-open-data-in-eiti-implementing-countries
9 Machine-readable means the information is structured in a way that eases extraction of data through dedicated codes, phrases or names. For further details on these concepts, please refer to Guidance Note 19 on publishing EITI data.
Figure 1: Screenshot of the Open Government Declaration

Together, we declare our commitment to:

**Increase the availability of information about governmental activities.**
Governments collect and hold information on behalf of people, and citizens have a right to seek information about governmental activities. We commit to promoting increased access to information and disclosure about governmental activities at every level of government. We commit to increasing our efforts to systematically collect and publish data on government spending and performance for essential public services and activities. We commit to proactively provide high-value information, including raw data, in a timely manner, in formats that the public can easily locate, understand and use, and in formats that facilitate reuse. We commit to providing access to effective remedies when information or the corresponding records are improperly withheld, including through effective oversight of the recourse process. We recognize the importance of open standards to promote civil society access to public data, as well as to facilitate the interoperability of government information systems. We commit to seeking feedback from the public to identify the information of greatest value to them, and pledge to take such feedback into account to the maximum extent possible.

*Source: Open Government Partnership, Open Government Declaration,*
http://www.opengovpartnership.org/about/open-government-declaration

MSGs can also draw from international best practices, such as the guidelines for open data of the Filipino government (see Figure 2). Annex A below includes an extensive list of open data policies and tools. Some countries have published the source-code for their websites under open licenses. The USEITI provided their source-code open for reuse on GitHub\(^\text{10}\), as does German EITI. The EITI International Secretariat provides the source-code used for EITI.org\(^\text{11}\). GitHub allows whoever is interested to look into the source-code providing the framework for EITI’s data portal, and to use the code if they wish. The website is licensed under the [GNU General Public License v3.0](https://github.com/EITIorg).

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\(^{10}\) GitHub is a code hosting platform for control and collaboration.

\(^{11}\) New webpages: [https://eiti.org](https://eiti.org); EITI GitHub repository: [https://github.com/EITIorg](https://github.com/EITIorg).
Guidelines for Open Data Implementation

Figure 2: Screenshot of “Guidelines on Open Data Implementation: JMC no. 2015-01”, open data in the Philippines’ government
Open data standards

MSGs should address the question of data standards. The sphere of open data is growing rapidly in many countries, creating a wealth of information in the public domain. International best practices on open data consider the following aspects:

1. **Data inter-operability**
   The relevance of open data is dependent on *interoperability* – the extent to which data can be compared and related to other datasets. For example, the EITI Standard encourages MSGs to reference international standards such as the IMF Government Finance Statistics Manual when publishing government revenue data. This helps ensure that government revenue data is comparable through time and between countries. The EITI International Secretariat uses this framework for the summary data provided via https://eiti.org/data. The secretariat also maintains an Application Programming Interface (API) for all summary data which serves as an access point for advanced EITI data users. This interface enables users to access improved standardized summary data.

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12 Consult the Technical notes, which have been drafted by the IMF in consultation with the EITI International Secretariat. These are available at https://eiti.org/summary-data-template
13 https://eiti.org/api/v1.0
in a structured format. EITI implementing countries are encouraged to explore similar approaches to ensure data accessibility for advanced data users.

The EITI International Secretariat has also supported a project financed by the World Bank to survey EITI reporting standards and accessibility strategies. The study included consultations with EITI implementing countries, industry and civil society organisations. The Options for Data Reporting\textsuperscript{14} includes recommendations for data output for EITI Requirements listed under the 2016 EITI Standard. The report presents what type of data is required and identifies international standards for data associated with each requirement. The report is a highly valuable resource for ensuring the interoperability of data, and complements several issues highlighted in this guidance note. It is recommended that implementing countries use the report as a reference document when implementing their open data policies.

2. Granularity of data
Open data policies should also address the level of disaggregation of data. Some MSGs have noted that national statistics are often aggregated in a way that does not allow meaningful analysis, e.g. when information is not disclosed per region, company, project or commodity type. The 2016 EITI Standard contains specific provisions regarding the level of disaggregation of data which should be reflected in MSG’s open data policies.

Step 3 – Consider options for the policy on access, release and re-use of EITI data.

The MSG’s open data policy should address three aspects: access, release and re-use of EITI data.

1. Access – MSGs should agree on the most effective way of enabling access to data based on the profile, resources, and technology available to potential data users. When feasible and practicable, MSGs may opt to craft policies that are specific to certain types of users, e.g. media, academia, parliament, local communities, etc. The USEITI, for example, undertook extensive consultations with likely users of EITI data as a key first step in developing their EITI data portal (see box 1). While the United States no longer implements the EITI, the platform is still being used by the Department of the Interior.

Building on our discussion of inter-operability in the previous section, open data policies should take note of data comprehensiveness. It is therefore important to ensure that data is interoperable with national and international standards, and where possible to use unique identifiers to link data across years of reporting or different sources. Open data policies should therefore also address the retention and availability of historical data covered by EITI Reports.

Box 1: Demand driven EITI data, USEITI

“If we focused just on the requirements, and not what the users wanted to see from it there would be a disconnect. Therefore, we spent a lot of time with users and included them in the design process. This helped us to answer the questions that people actually wanted to know.”

– Paul Mussenden, USEITI team

The USEITI undertook extensive stakeholder consultation before developing their EITI data portal.

This enabled USEITI to identify the data-points and types of visualisations that were in the highest demand. They also considered definitions and explanations of terms that would be useful for less experienced users.

This is commonly referred to as user-, or demand-driven data. It focusses on identifying likely user groups and mapping their needs. USEITI also allows for continuous feedback (see screenshot to the right).

The approach led to a broader push to use the website as a source for all the relevant data for the USEITI’s report. They produced a fairly short document which included information of methodology and the key facts and outcomes of the reconciliation process, with the detailed data available through the data portal.

For more information or to visit the US Department of the Interior’s data portal, visit https://revenuedata.doi.gov/explore/.

2. Release – EITI Implementing countries are encouraged to “release data under an open license that allows users to freely obtain and easily re-use it”. The MSG’s open data policy should clarify the procedures for the release of data, including provisions addressing regularity, timeliness, and methods of release. The procedures could include objective goals for release for example by setting minimum deadlines for the release of summary data.

Table 1 below presents the most common types of disclosures associated with EITI data; from pdf-files that are not open but locked data, to disclosures in Resource Description (RDF) and Linked Open Data (LOD) formats. In LOD, the data is linked directly from the original publisher or source.
of the data, with immediate updating once changes have been made at source. This format also enables cross-platform communication with other datasets.

<table>
<thead>
<tr>
<th>Openness</th>
<th>File-type</th>
<th>Data Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locked</td>
<td>PDF</td>
<td>Locked document format (not open). Needs a manual labour or a customised program to retrieve the information.</td>
</tr>
<tr>
<td>Open</td>
<td>XLS</td>
<td>Data document; but requires compatible program, data structure is locked.</td>
</tr>
<tr>
<td>Open</td>
<td>CSV</td>
<td>Data document; compatible across all programs, data structure is locked.</td>
</tr>
<tr>
<td>Open</td>
<td>RDF</td>
<td>Web-data; each data-point is directly linkable for others; data structure is open.</td>
</tr>
<tr>
<td>Open</td>
<td>LOD</td>
<td>Network-data; each data-point is directly pulled from source of data, and speaks with other datasets.</td>
</tr>
</tbody>
</table>

Source: Based on the 5-star Open Data framework: [http://5stardata.info/](http://5stardata.info/)

The ODC specifies that digital data needs the necessary technical aspects and that information is provided in such a way that permits and encourages the re-use and redistribution of data i.e. it should be provided in a way that allows interoperability with other information or datasets. EITI Requirements only require open data disclosures in the form of excel or csv-files, meeting the minimum of open data definitions. RDF- and LOD-files are examples of more flexible open data formats, in which data-points may be embedded in websites and are linkable to other datasets. More flexible options enable users of data to constantly have the most updated data available.

Extracting, reusing and modifying data from pdf reports requires considerable work. Traditional EITI Reports therefore do not meet the definition of open data. MSGs are free to explore the different options of table 1 and, although the leap towards RDF or LOD-files may not be realistic in the immediate future, it is useful to keep these in mind as they greatly improve data access and reduce time spent on data collection. Such open data formats are therefore highly relevant for the future of mainstreaming EITI disclosures.

In discussing policies of data release, MSGs should be mindful also of the EITI Standard’s provisions on data timeliness under requirement 4.8 (a) and (b). It states that “implementing countries must disclose data no older than the second to last complete accounting period […].” and that MSGs are encouraged to explore opportunities for disclosing data in a timelier manner.

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16 Locked data structure means that since the data is contained in documents, or files, the structure of the information is defined by the document file-type. Therefore, although easily extracted, it is less flexible than file-types such as RDF or LOD.
Open data policies should therefore include language which reflect these requirements and, if possible, should identify open data disclosures as a method for achieving more timely disclosures.

3. **Re-use** - MSGs are required to agree a policy on the re-use of EITI data. This means that MSGs must determine how freely a user can modify and analyse EITI data, especially in terms of combining the data with other information from different sources. The EITI Open data policy and the EITI Standard clearly encourages implementing countries to release data under open licenses, allowing users to freely obtain and easily re-use it. Open licenses essentially mean the publication of EITI data without legal or administrative restrictions on behalf of the user. MSGs might therefore wish to explore the need to endorse or recommend to government agencies the use of Creative Commons or free/open source licenses for their data base.

Table 2 shows the different types of open licenses commonly associated with open data. It shows the various **sharing-levels** associated with different licenses. All examples below are open licenses.

<table>
<thead>
<tr>
<th>Sharing-level of Licence</th>
<th>Creative Commons License</th>
<th>Open Data Commons License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Domain Attribution</td>
<td>CC0</td>
<td>PDDL</td>
</tr>
<tr>
<td>Attribution &amp; Share-Alike</td>
<td>CC-by-sa</td>
<td>ODbL</td>
</tr>
</tbody>
</table>

Table 2: Open licenses

Source: Licenses and links were gathered from Open Data Institute: [https://theodi.org/guides/publishers-guide-open-data-licensing](https://theodi.org/guides/publishers-guide-open-data-licensing)

**Public domain** licenses mean that the data in question is free of any copyright and the publisher(s) waive any right of retaining the data. In this case, the users are free to:

i. copy and distribute the data;
ii. produce new works using the data;
iii. and modify, adapt and build upon the data.

Users can, in this instance opt out of copyright and data protection-licenses if they choose to re-use or re-publish the data. This means the users are not obligated to cite the source of the data.

**Attribution** licenses, includes all the characteristics of public domain-licenses, with the only additional restriction that the source of the data must be cited, and that any notices accompanying the publication must be kept intact.

Lastly, **attribution & share-alike** licenses include the same rights and restrictions of the two preceding types, but with an additional restriction that new works must be published under the same license as the source, and can only be published in locked formats, as long as another version is published alongside in an open data format.

An alternative to these standard open licenses is to create a custom license, similar to the government of the United Kingdom. Their own license can be accessed through the link provided in section 6.
The above alternatives should, alongside assessments of current national priorities and policies, be brought to the attention and discussed by the MSG for subsequent decision. Open licenses do not require registration in order to be used, only a statement on the website including the name of the license, with a link to the relevant explanation. An example is provided below for Creative Commons Attributions license:

*Figure 3: Creative Commons Attribution license screenshot*

*Source: Creative Commons Homepage, [https://creativecommons.org/](https://creativecommons.org/)*

**Use of data**

Open data is widely recognised to have a significant potential for benefits. An article by Forbes referred to data as “the new oil”\(^\text{17}\) with the usefulness and value depends on how (un)refined it is. This is covered more under Step 2, in the section covering open data standards. However, another important determinant for the usefulness of open data is the capacity of potential users to understand and use it.

The EITI Open data policy encourages implementing countries to work towards increasing open data literacy and encouraging potential users to unlock the value of open data. In other words, an open data policy should also include specific provisions on training users, in particular government officials and civil society organisations by providing them with detailed information on which disclosures are made in open data formats, as well as how to use and analyse the data. Through webinars and instructional videos, MSGs can improve users’ understanding of datasets, especially in combination with standardised tools for visualising and presenting data.

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\(^{17}\) Rotella, Perry. *Is Data the New Oil?* [https://www.forbes.com/sites/perryrotella/2012/04/02/is-data-the-new-oil/](https://www.forbes.com/sites/perryrotella/2012/04/02/is-data-the-new-oil/)
Therefore, understanding one’s audience and which issues are most relevant in a country’s extractive sector are key for effective data visualisation and presentation. Some implementing countries are already performing such functions, such as Mongolia (see an overview with links on https://eiti.org/data). The screenshot in figure 3 show a clear presentation of EITI data using interactive charts, with all the information accessible in excel, csv or JSON formats.

**Step 4 – Document the MSG’s policy on access, release and re-use of EITI data**

The MSG should agree a written statement outlining the MSG’s policy on access, release and re-use of EITI data. In the event of adopting a wider national policy, an MSG statement of endorsement may be used. Examples of existing policies are available [here](http://e-reporting.eitimongolia.mn/).

**Step 5 – Evaluation.**

It is recommended that the MSG regularly review the open data policy, and provide updates on progress through their Annual Progress Reports. Surveys of users of EITI data can help identify opportunities to improve EITI reporting.
Annex A: Additional information and further readings

Open data policies and licenses


Data standards


Joined-up Data Standards, Alphabetic index of data standards (JUDS 2016), [http://joinedupdata.org/#data_standards_index](http://joinedupdata.org/#data_standards_index)


Resources for mainstreaming/systematic disclosures


EITI, Systematic disclosure webpage, https://eiti.org/systematic-disclosure

Examples of online solutions

Democratic Republic of Congo, Données ITIE (ITIE-RDC, 2016), http://itie-rdc.masiavuvu.fr/donnees-itie/


Government of Sierra Leone, GoSL Online Repository (RDF, 2014), https://sierraleone.revenuedev.org/

EITI, Open EITI Data, https://eiti.org/data

EITI Indonesia, EITI Indonesia data portal (Satu Data Indonesia 2016), http://eiti.ekon.go.id/

Kazakhstan EITI, Online EITI data portal (EITI Kazakhstan 2016), http://egsu.energo.gov.kz/webapp/pages/home.jsf (available in Kazakh or Russian only)

Mongolia EITI, EITIM E-Reporting System (EITIM 2016), http://e-reporting.eitimongolia.mn/


Sénégal ITIE, Statistique Hydrocarbures (Senegal ITIE, 2017), http://itie.sn/statistiques-hydrocarbures/

Annex B: Recommended actions for inclusion in EITI work plans

The EITI Open Data Policy contains recommended actions that MSGs are encouraged to undertake. To operationalize these recommendations, the following action points could be agreed by the MSG and reflected in the work plan.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Possible actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Orient government and corporate systems towards open data by default</td>
<td>• Commission feasibility studies and/or recommend reforms to promote systematic disclosure of data by companies and government agencies</td>
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<td></td>
<td>• Secure political commitment</td>
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<td></td>
<td>• Propose regulations for agencies to adopt open data systems</td>
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<td></td>
<td>• Identify an open data champion in relevant government agencies</td>
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<td></td>
<td>• Endorse or clarify national policies on open data in EITI Reports</td>
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<tr>
<td></td>
<td>• Discuss constraints and barriers to adopting open data standards</td>
</tr>
<tr>
<td>2. Ensure that the data are fully described, so that users have sufficient information to understand their strengths, weaknesses, analytical limitations, and security requirements, as well as how to process the data</td>
<td>• Evaluate current procedures for ensuring data quality and provide recommendations in case of gaps</td>
</tr>
<tr>
<td></td>
<td>• Address open data issues in the Independent Administrator’s Terms of Reference.</td>
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<tr>
<td></td>
<td>• Conduct capacity building activities on how to process and analyse data</td>
</tr>
<tr>
<td>3. Release data as early as possible, allow users to provide feedback, and then continue to make revisions to ensure the highest standards of open data quality</td>
<td>• Agree on mechanisms for real time or up-to-date release of data</td>
</tr>
<tr>
<td></td>
<td>• Publish excel files on the EITI website.</td>
</tr>
<tr>
<td>4. Release data under an open license that allows users to freely obtain and easily re-use it</td>
<td>• Examine whether there are existing restrictions to the use of data.</td>
</tr>
<tr>
<td></td>
<td>• Identify constraints to the use of open license and provide recommendations to resolve them</td>
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<tr>
<td></td>
<td>• Task the Independent Administrator to produce excel files, alongside compiling Summary Data Templates</td>
</tr>
<tr>
<td>5. Share technical expertise and experience with other countries to maximise the potential of open data</td>
<td>• Conduct capacity building activities to improve data literacy and understanding open data principles</td>
</tr>
<tr>
<td>6. Work to increase open data literacy and encourage people, such as</td>
<td>• Conduct capacity building activities to improve data literacy and understanding open data principles</td>
</tr>
<tr>
<td>Guidance note 27</td>
<td>April 2018</td>
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<tr>
<td>------------------</td>
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<tr>
<td>developers of applications and civil society organisations that work in the field of open data promotion, to unlock the value of open data</td>
<td>• Perform user surveys examining the needs of different user-groups</td>
</tr>
</tbody>
</table>
| 7. Ensure that data is interoperable with national and international standards including adopting data standards approved by the EITI Board and additional guidance provided by the EITI secretariat | • Examine current and previous ways of disclosing data adopted by government agencies and provide recommendations on how to make them interoperable across agencies  
• Evaluate current data and, where applicable, ensure they are classified according to GFS systems |
| 8. Use unique identifiers to link data across years of reporting or different sources | • Examine current and previous ways of disclosing data adopted by government agencies and provide recommendations on how to make them interoperable across time, for example by using Tax Identification Numbers (TINs) or business identifiers for companies. |
| 9. Provide data in granular, machine-readable formats | • Agree on level of disaggregation for all EITI data  
• Include in the IA’s ToR provisions on publishing data in machine readable formats and data granularity. |