INDEPENDENT REPORTING MECHANISM:

ALIGNING SUPPLY AND DEMAND FOR BETTER GOVERNANCE

OPEN DATA IN THE OPEN GOVERNMENT PARTNERSHIP
INDEPENDENT REPORTING MECHANISM:
ALIGNING SUPPLY AND DEMAND FOR BETTER GOVERNANCE
OPEN DATA IN THE OPEN GOVERNMENT PARTNERSHIP

EXECUTIVE SUMMARY

I | INTRODUCTION
  1 | OPEN DATA’S PLACE IN THE OPEN GOVERNMENT PARTNERSHIP
  2 | THE MISMATCH OF DATA SUPPLY AND DEMAND
  3 | HOW AND WHEN OPEN DATA LEADS TO GOOD GOVERNANCE

II | METHODOLOGY
  1 | LIMITATIONS

III | FINDINGS
  1 | POPULARITY OF OPEN DATA COMMITMENTS IS GROWING AMONG OGP COUNTRIES
  2 | OGP COMMITMENTS EMPHASIZE TECHNICAL INFRASTRUCTURE
  3 | OPEN DATA COMMITMENTS AND SECTORS
  4 | SECOND ACTION PLANS SEE A LIMITED SHIFT TOWARD CONTEXT-ORIENTED COMMITMENTS
  5 | WHAT IS GETTING DONE? FROM IMPLEMENTATION TO OUTCOMES

IV | CONCLUSIONS
  1 | RECOMMENDATIONS

V | ANNEX

INDEPENDENT REPORTING MECHANISM:
ALIGNING SUPPLY AND DEMAND FOR BETTER GOVERNANCE
OPEN DATA IN THE OPEN GOVERNMENT PARTNERSHIP
EXECUTIVE SUMMARY

INDEPENDENT REPORTING MECHANISM (IRM): ALIGNING SUPPLY AND DEMAND FOR BETTER GOVERNANCE

Many have predicted that open government data will lead to major gains in political accountability, generate economic value, and improve the quality of government services. Yet, there is a growing consensus among practitioners and experts that, for open data reforms to have strong governance, economic, and social impacts, reforms must do more than make data available and reusable. Government reforms ultimately must aim to provide data that is useful and used. There may be a high opportunity cost to investing in open data in the place of other useful governance reforms.

The Open Government Partnership (OGP) is an international platform for domestic reformers committed to making their governments more open, accountable, and responsive to citizens. The Independent Reporting Mechanism (IRM) is one of OGP’s learning and accountability tools. Since 2011, OGP has grown from eight countries to the 65 participating countries. In all of these countries, government and civil society are working together to develop and implement ambitious open government reforms through bi-annual national action plans. OGP has grown quickly. As a consequence of its rapid growth, it runs the risk of being accused of “open-washing.” With a growing emphasis on open data commitments among its participating countries, OGP’s credibility and goals could be jeopardized if open data commitments ultimately fail to improve governance.

This paper identifies strong performances and gaps in aligning open data supply and demand. Findings from action plans and IRM reporting reveal the following trends:

- OGP countries are making more open data commitments in their national action plans, both in absolute numbers and in percentage. This could be good for open data advocates, but may come at the expense of other open government approaches that may be more effective at countering excessive secrecy and corruption.

- Open data commitments emphasize government supply of data and government coordination mechanisms over identifying and stimulating public demand for data.

- Among a smaller group of countries, a growing number of commitments aim to align supply and demand by reforming the regulatory framework and by setting up mechanisms to ensure greater demand, such as participatory prioritization processes in which government solicits public input on which data sets to release. However, typical OGP action plans do not show a distinct move toward establishing or implementing the right to request data.

- There is some evidence that sector-specific approaches to open data see higher rates of implementation than crosscutting and whole-of-government approaches to open data. Commitments emphasize data on budgets, health, natural resources, and aid.
Based on the evidence, at present, there are two major growth areas for open data in OGP:

- **Formulating and executing commitments to align supply and demand.** As it stands, open data programs featured in OGP need to establish more clearly the usefulness of data to key public constituencies. Future commitments will need to improve processes for identifying high-value data sets, to establish processes for participatory prioritization, and to strengthen request means, including the right to information.

- **Formulating and executing commitments that relate clearly to other OGP values of civic participation and accountability.** Open data commitments may do a good deal to improve market efficiency or to improve social outcomes, but if they are to improve governance, they must have clear articulation with public decision making processes (participation) and with public accountability mechanisms.

**RECOMMENDATIONS**

To ensure sustainability, usefulness, and use of open data, OGP stakeholders can implement the following actions:

- **Mainstreaming open data with open decision making and public accountability:** Open data activities need to be integrated more clearly into other forums that may lack data. As it stands, many reforms run in parallel. Additionally, open data is not used for public decision making or in holding officials to account. OGP countries should lead public, open data-informed decision making and accountability.

- **Emerging best practices to align supply and demand:** Stakeholders, especially those participating in OGP’s Open Data Working Group, can work to develop, to expand and to disseminate context-sensitive best practices that cover data supply, context, legal reforms, and data use.

- **Beyond low-hanging fruit:** Open data advocates and OGP supporters, in particular, must make the case for politically, socially, and economically relevant open data. This will include gathering stories and case studies on when data enlightened citizens on what their governments are doing and reduced secrecy. Further data should be developed to identify when open data commitments feed into other OGP values such as participation in decision making and accountability mechanisms.

- **Demonstrating high-value data:** Through OGP action plans and otherwise, OGP stakeholders need to negotiate a balance between ambitious whole-of-government reform and sector-based reforms that have governmental and extra-governmental constituencies. To ensure that useful data is released, OGP stakeholders will need to continue the spread of reforms to align demand and supply, such as reforming Right to Information laws to cover data and participatory prioritization exercises. On the supply side, further support is needed to remove roadblocks for high-value data, including high-level political support. Another area of high-value data is the continued development and sharing of data standards around key issue areas, where such standards are appropriate.
See http://www.opengovpartnership.org/countries for a list of participating countries.
INTRODUCTION

Many have predicted that government publication of open data will lead to major gains in political accountability, generate economic value, and improve the quality of government services. Yet, there is a growing consensus among practitioners and experts that, for open data reforms to have a strong impact, they must achieve more than making data available and reusable.

While the development of technical platforms and the publication of data are fundamental steps toward achieving impact, government reforms ultimately must aim to provide data that is useful and used. This will not happen at the appropriate scale without additional reforms that seek to ensure that supply of data is better aligned with demand. A supply and demand system would aim not only to put in place technical standards and digital platforms, but also to cultivate data users in place and to ensure that data is useful to citizens, governments, businesses, and researchers. In the long run, it would contribute to sustainability, efficiency, and effectiveness of open data programs. It could help avoid the release of useless or unused data, whether political, social, or economic. More importantly, ensuring that there are channels for the articulation of demand can help to avoid one of the bigger risks to a transparency and accountability agenda: “open-washing” or passing off the release of inconsequential government-held data as transparency.

With this in mind, this paper looks at what open data initiatives are being carried out as part of one major international initiative, the Open Government Partnership (OGP). It seeks to understand which policy areas are being tackled and the degree to which open data may achieve deeper reform.

1.1 OPEN DATA’S PLACE IN THE OPEN GOVERNMENT PARTNERSHIP

OGP is an international platform for domestic reformers committed to making their governments more open, accountable, and responsive to citizens. Since 2011, OGP has grown from eight to 65 participating countries. To participate in OGP, governments work with civil society members to develop and implement ambitious open government reforms. To become part of OGP, participating countries must endorse a high-level Open Government Declaration, deliver a country action plan developed with public consultation, and commit to independent reporting on their progress going forward.

Opening government-held data has been an integral part of OGP since its inception. Leaders from each OGP country have endorsed the “Open Government Declaration.” This public declaration commits OGP participating countries to providing data and to

Box 1 | About this Paper

Who this paper is for:

- Governments, NGOs, and multilaterals interested in ensuring meaningful, sustainable reforms through OGP commitments.
- Open data practitioners and advocates trying to identify emerging best practices and gaps through real-world government initiatives.

How to use it:

- Use the Common Assessment Framework to evaluate and generate OGP open government commitments
- Use this paper to learn from what is working and what is not in OGP countries. Go deeper into the commitments at: http://bit.ly/1PN5vyj.
- Use the findings of this paper to advocate for more ambitious, sustainable, and useful open data commitments in OGP action plans.
ensuring that the public can identify, reuse, and engage with government data. (See Box 2.) In this sense, OGP participating countries are to promote not only the supply, but also the demand for data held by governments.

Beyond OGP’s normative arguments for opening government-held data, there are three common instrumental arguments in favor of opening government-held data (Center for Data Innovation 2015):

1. Economic: Potential economic impact
2. Social: Improved public services
3. Political: Better accountability through reduced fraud, waste, and abuse

OGP stakeholders—governments and non-governmental entities—emphasize these arguments differently. Action plans, media coverage, and reviews of government actions reflect diversity in focus and approach. The G8 Open Data Charter, balances these objectives, as signatories commit to both “Releasing Data for Innovation” (Principle 5) and “Releasing Data for Improved Governance” (Principle 4). “Improved governance,” as described in the Open Data Charter, includes information on “democratic institutions and encourages better policy-making to meet the needs of our citizens.”

This paper emphasizes open data for good governance while acknowledging that open data programs have other critical aims. Within the context of OGP, however, improving transparency and accountability have pride of place.

Accountability scholars have recognized the limits of traditional forms of political accountability such as elections and parliamentary oversight. Scholars have been exploring their limitations and looking at how newer approaches (variously known as hybrid accountability, diagonal accountability, social accountability and citizen-led accountability) can offer more effective, timely ways for a broader range of people to hold governments or states to account.

The opening up of data is a strategy that plays a part in some of these newer approaches (as well as being relevant to traditional forms of political accountability). Accountability scholars are already clear that opening up data is only one of the strategies needed to get to responsive, accountable governance, and that there are others that cannot be attained or mobilized by opening up data. This paper focuses on getting the most out of the strategy of opening up data, by exploring what nature of data, in what data environment (or context), and in what usage context, can make the best contribution.

Box 2 | Selected Text from the Open Government Partnership 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 pro-actively 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.

Note: Formatting and emphasis added.
1.2 THE MISMATCH OF DATA SUPPLY AND DEMAND

A recent synthesis of open data initiatives in developing countries (Davies 2014) confirms that there is a mismatch between data supply and demand in OGP countries. The report finds many gaps to overcome before open data availability can lead to widespread effective use and impact. Specifically, the report points out that the common practice of counting datasets is a poor way of assessing the quality of an open data initiative:

The datasets published on portals are often the datasets that are easiest to publish, not the datasets most in demand. Politically sensitive datasets are particularly unlikely to be published without civil society pressure. Sometimes the gap is on the demand side – as potential open data users often do not articulate demands for key datasets.

Aligning supply and demand is a precondition to ensuring that open data contributes to improving governance.

1.3 HOW AND WHEN OPEN DATA LEADS TO GOOD GOVERNANCE

Even where supply and demand for government-held data aligns in part, other conditions are fundamental to achieve improved governance.

To improve governance, open data programs must meet some basic conditions—namely disclosure, publicity, space for public reaction, and accountability. Without these conditions, OGP believes that the promise of open data for improved governance poses a particular reputational risk. As Peixoto states, “…the disclosure of government data—politically relevant or not—may well constitute an excellent artifice for governments to remain opaque while taking credit for championing transparency.” In this sense, given a prevalent interest in open data as reflected in national action plans, OGP must be able to deliver results without running the risk of “open-washing.”

But how can opening government-held data deliver better accountability results? Peixoto’s 2013 article provides a useful heuristic for the link between transparency and accountability, building off of Fox (2007) and Robinson & Yu (2009). Figure 1 adapts Peixoto’s links between disclosure and accountability.

If OGP governments are to meet the goals of the Open Government Declaration, open government activities must make available useful, usable information. Beyond this, they require an enabling environment, channels for public expression, and means to hold decision makers to account.

2 See http://www.opengovpartnership.org/countries for a list of participating countries.

3 The Open Government Partnership (OGP) formally launched on 20 September 2011, when the eight founding governments (Brazil, Indonesia, Mexico, Norway, the Philippines, South Africa, the United Kingdom and the United States) endorsed the Open Government Declaration and announced their country action plans. In just two years, OGP has welcomed the commitment of 57 additional governments to join the Partnership. In total, OGP participating countries have made over 1,000 commitments to make their governments more open and accountable. See more at: http://bit.ly/1Ag9lt1.


8 A similar heuristic could be developed for economic data. First, the principle aim of open data for markets would not (primarily) be to increase accountability, but rather the creation of surplus or new market opportunities. The definition of “useful” would necessarily change for both market-based and social interventions. For open data to have an impact on markets, the enabling environment for publicity, the means of reacting, and the means of providing feedback to officials would differ greatly. Such a discussion, while useful and well within the bounds of OGP goals, is beyond the scope of this paper. Given that this paper is written with a focus for OGP stakeholders, governance outcomes are given pride of place.
II | METHODOLOGY

Strong open data policy programs will have means of aligning demand and supply. Further, they will exist in a context where users are likely to find and to use data to improve the quality of government.

In the spirit of identifying strong performance and innovations in open data, this paper aims to describe commitments undertaken in OGP action plans using data from OGP’s IRM to assess what governments have promised, which of those actions were carried out, and what was learned in each national context.

The authors focus on five questions to shed light on open data in OGP action plans:

• **How prevalent is open data in OGP?** This question looks at the emphasis on open data commitments in OGP action plans. This is critical to identifying the degree to which open data is emphasized in OGP and to seeing whether there is growing or diminishing investment.

• **Supply, demand, or context?** This question analyzes whether OGP commitments are limited to supply of information or if they also cultivate demand and use of data.

• **Open data for what?** Social movements and organized civil society tend to crystallize around government agencies and specific policies. If open data commitments are to reach end users, many will need to be embedded into sectoral processes. This question identifies when and where OGP commitments serve specific producer and user communities (sectors) and when they are crosscutting whole-of-government reforms.

• **Is there a shift from data availability towards use or context?** Some argue that a technical infrastructure should precede demand and usability. This question compares countries’ first action plan with their second action plan to see if, once technical platforms and regulatory structures are implemented, there is greater emphasis on broader “ecosystem” reforms.

• **What is being accomplished?** This question moves beyond intent of commitments to analyze what was accomplished in OGP. How potentially impactful are particular commitments? Have more politicized commitments been completed? Do context-enhancing reforms tend to be implemented?

To identify gaps and opportunities in OGP country performance, this paper uses data from the nearly 2,000 commitments and activities submitted as part of OGP. Of these commitments, 242 commitments directly mention open data.

Of the nearly 2,000 OGP commitments, nearly half have been reviewed by the IRM. The IRM produces annual reports on the ambition, completion, and scope of OGP commitments and action plans on an annual basis. Reports are completed by national researchers based in each OGP country based on a common framework that takes national context into account while allowing for cross-country learning and comparison. For each commitment, researchers assess specificity, potential impact, relevance to open government, and completion. Each commitment analysis also contains qualitative descriptions of results.¹

The open data commitments surveyed in this paper almost certainly represent a subset of all of the commitments dealing with open data, as there was no way to confirm direct relevance to OGP for some of the commitments which dealt with “data” or “information.” Nonetheless, the 242 commitments likely comprise a representative majority of OGP’s open data commitments. The 242 commitments come from 2012 – 2015. They appear in both first and second action plans (http://bit.ly/1PN5vyj).

To assess the extent to which OGP commitments address both supply and demand for open data, the authors developed a tagging framework. Tags drew upon the existing body of open data definitions and principles.² As a first stage, the authors worked with
attendees of the Open Knowledge Festival 2014 in Berlin to develop a set of open data commitment tags and themes.

In a second phase, working with World Wide Web Foundation, the authors defined, refined, and integrated the tags into the “Common Method for Assessing Open Data.” The 26 tags were grouped into three clusters: Data supply, Environment, and Use.\(^3\) The coding revealed various patterns of open data policy providing insight on the degree to which national initiatives, policies, and goals are creating supply but also enabling demand. Coding for the commitments took place during 2014 and 2015. Due to time and budget constraints, authors coded. Further checks are needed to ensure solid intercoder reliability. Coding was based on the official versions of the commitments, as posted on the OGP website. In most cases, these were in English, although in some cases, this was in Spanish. Of the 242 commitments, 92 had been assessed through the IRM process.

Tags, enumerated in Figure 2, enabled the authors to answer the questions above. Definitions are given in the annex.

---

**Figure 2 | Open Data Tags in the Common Method for Assessing Open Data**

<table>
<thead>
<tr>
<th>COMMON METHOD CATEGORY</th>
<th>CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DATA SUPPLY</strong></td>
<td>• technical platforms;</td>
</tr>
<tr>
<td>The nature and quality of open datasets: their legal, technical and social openness, relevance and quality. The framework also looks to identify core categories of data that might be evaluated in assessments.</td>
<td>• machine readability;</td>
</tr>
<tr>
<td></td>
<td>• data standards;</td>
</tr>
<tr>
<td></td>
<td>• “open by design”;</td>
</tr>
<tr>
<td></td>
<td>• openness monitoring;</td>
</tr>
<tr>
<td></td>
<td>• five-stars of open data;</td>
</tr>
<tr>
<td></td>
<td>• auditing;</td>
</tr>
<tr>
<td></td>
<td>• feedback/correction channels;</td>
</tr>
<tr>
<td></td>
<td>• frequency of updating;</td>
</tr>
<tr>
<td></td>
<td>• inventory of databases</td>
</tr>
<tr>
<td><strong>ENVIRONMENT / CONTEXT</strong></td>
<td>• financial commitments;</td>
</tr>
<tr>
<td>The context within which open data is being provided. This might be national, in the case of central government’s open data, or more specific, in the context in a particular sector such as health, education or transport.</td>
<td>• coordination mechanism;</td>
</tr>
<tr>
<td></td>
<td>• request mechanisms and appeals processes;</td>
</tr>
<tr>
<td></td>
<td>• privacy restrictions;</td>
</tr>
<tr>
<td></td>
<td>• right to information legislation;</td>
</tr>
<tr>
<td></td>
<td>• participatory prioritization;</td>
</tr>
<tr>
<td></td>
<td>• licenses and reuse permissions</td>
</tr>
<tr>
<td><strong>USE</strong></td>
<td>• improving discoverability;</td>
</tr>
<tr>
<td>The types of users accessing data, the purposes for which the data is be used and the activities being undertaken to use it. This part of the framework addresses the ‘who, what, and why’ of open data in use.</td>
<td>• supporting intermediaries;</td>
</tr>
<tr>
<td></td>
<td>• evangelism;</td>
</tr>
<tr>
<td></td>
<td>• creating public demand;</td>
</tr>
<tr>
<td></td>
<td>• high value content;</td>
</tr>
<tr>
<td></td>
<td>• government data;</td>
</tr>
<tr>
<td></td>
<td>• non-government data</td>
</tr>
</tbody>
</table>
LIMITATIONS

Given the limitations on: (a) sample size; (b) the relative incomparability of “commitments” as a unit of analysis; (c) the fact that this is a subset of all open data commitments; and, (d) tests for intercoder reliability, this paper is offered in an exploratory spirit. Further research is needed before any social scientific claims can be made about the health of open data in OGP. Nonetheless, the authors feel that the conclusions reached by this paper are adequate to inform future development of OGP action plans.

Furthermore, and perhaps most importantly, this paper cannot delve into the “why” of open data. An analysis of commitments in OGP action plans, especially with a primarily quantitative approach, can highlight some trends and achievements, but it cannot explain why governments chose these commitments and not others. This is critical in understanding the ultimate potential impact of commitments, but requires an understanding of how institutional incentives, politics, and opportunities play out in each national context.

1 See http://www.opengovpartnership.org/about/about-irm for the most recent version of the IRM method and Procedures Manual.
2 The 8 Principles of Open Government Data, the G8 Open Data Charter, and the Sunlight Foundation’s Guidelines for Open Data Policies were reviewed, and common features were identified in the development of the tagging framework.
3 The 8 Principles of Open Government Data, the G8 Open Data Charter, and the Sunlight Foundation’s Guidelines for Open Data Policies were reviewed and common features were identified in the development of the tagging framework.
This section of the paper addresses the key questions laid out in the beginning of the paper to understand just how potentially impactful and sustainable OGP open data commitments are and where there is additional space for experimentation and development.

3.1 POPULARITY OF OPEN DATA COMMITMENTS IS GROWING AMONG OGP COUNTRIES

With only a few exceptions, open data commitments have become more popular between OGP action plans. Almost every OGP country with two action plans has increased the number of commitments labeled as open data. The percent of open data commitments declined in three cases (Brazil, Macedonia, and the United States), but their absolute numbers did not decline. Action plans contained more, varied commitments overall.

Figure 3 below shows the change between the first action plan (on the vertical axis) and the second action plan (on the horizontal axis). Notably, only one country shows a relative decline in open data commitments. The reader is reminded that these numbers represent only commitments labeled “Open Data” or using similar words, thus, an undercount is likely.

<table>
<thead>
<tr>
<th>% Open Data Commitments Action Plan 1</th>
<th>% Open Data Commitments Action Plan 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>25+%</td>
<td>None</td>
</tr>
<tr>
<td>11-25%</td>
<td>11-25%</td>
</tr>
<tr>
<td>1-10%</td>
<td>1-10%</td>
</tr>
<tr>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
Growing interest is evident in countries such as Greece and Uruguay, where the number of open data commitments significantly increased in their second national action plans—33% and 7%, respectively. Successful completion or substantial progress made towards the first round of open data commitments offer a likely explanation for this increase. In addition to Greece and Uruguay, countries like Croatia, El Salvador, Estonia, Guatemala, and Ukraine also experienced a positive shift in commitment towards open data.

Notably, five countries do not use the term “Open Data” in their commitments: El Salvador, Honduras, Indonesia, Jordan, and South Africa. These countries may have open data commitments, but it remains unclear as written in the action plans.

However imperfect, the data shows a clear trend among OGP countries. Open data commitments are seeing greater emphasis. Given this trend, it could be that open data will increasingly be one of the means by which governments make themselves more open, transparent and accountable. If so, it will be essential for OGP stakeholders to construct open data commitments and action plans that make the business of governing more transparent, participatory, and accountable.

### 3.2 OGP COMMITMENTS EMPHASIZE TECHNICAL INFRASTRUCTURE

To what extent are OGP commitments limited to the supply of information? Do they also cultivate demand and enable data use?

Tags focused most on data supply and infrastructure. (See Table 1.) Understandably, many of the commitments focused on the basic infrastructure and data prior to building larger demand or to identifying which information to release.

#### A. Data supply and infrastructure

Commitments to supply open data comprise indispensable elements of open data strategies. Contextual commitments on the types of data to be published, and the extent to which they should be published on the Internet, were most heavily represented. Technical building blocks such as open data platforms, machine-readable formats, and open standards were the second-most represented. Searching, finding, evaluating, and viewing data were partially discussed by licenses and reusability permissions, but to a lesser degree. Efforts to promote open data within government made up seven percent of commitments. However, goals and initiatives through other pockets on the demand-side were also evident.

Why might data supply commitments be the most common set of tags? This could be because these commitments comprise a necessary first step. Alternately, these could be “low-hanging fruit,” either from a technical or political standpoint. Finally, it could be that vendors often actively promote technical platforms, and governments involved in OGP have the most control over the supply of data. Each of these tags is discussed in order of most to least frequent.

#### A.1 Technical platforms

The most frequent tag was for commitments establishing technical platforms. This category includes open data portals, collection systems, and digital record-keeping systems. Platforms host data and make datasets searchable. Sixty-six commitments (27% of total open data commitments) were applicable to this category. Across the first and second national action plans, technical platforms were 17% and 14% of total tags, respectively.

Commitments demonstrated different government approaches to technical platforms.

Many technical platforms were described as ‘portals,’ ‘data registries,’ ‘catalogues,’ or ‘repositories.’ Others refer to embedded functions to visualize data or to support user interaction and feedback. As agencies and government authorities move towards opening

<table>
<thead>
<tr>
<th>DATA SUPPLY</th>
<th>CONTEXT</th>
<th>DATA USE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>128</td>
<td>50</td>
<td>62</td>
<td>242</td>
</tr>
<tr>
<td>53%</td>
<td>21%</td>
<td>26%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1 | Data Supply Commitments are the Majority of Open Data Tags

When commitments are looked at through more granular tags, the trend to emphasize data supply continues. Figure 4 shows distribution among the top 17 tags (all tags that had more than 2% of commitments).
their datasets, many ensure that technical platforms allow individuals to search, consume, and reuse data. Of the technical platforms, 41% of technical platforms were dedicated to a specific type of data (see next section, “Open Data for What?”). In addition to budgetary portals, many other examples of sector-specific portals were cited, such as Greece’s Hellenic Parliamentary Data Portal and Romania’s public health platforms.

A.2 Machine readability
Ensuring that data are in non-proprietary formats is imperative to extracting its value. It makes data technically open. Only then can data be sorted, filtered, searchable, and manipulated using freely available source software. Thirty-two commitments (13% of open data commitments) promise data either in ‘machine-readable’ format or in another specific open data format.

Most commitments referred broadly to general machine-readability, while a minority referenced specific machine-readable formats. The first Mexican action plan references open formats such as CSV, XML, and KML, stating that PDFs is no longer considered public information. Lithuania is making necessary reforms to their internal IT system to release datasets in CSM, XML, and other open formats.

A.3 Data standards
A data standard describes the fields a particular dataset can contain, how they should be represented, and what conventions should be used for sharing dates, locations, categories and other common elements in a dataset. This allows consistency and comparability of data across specific cases. For example, data standards might ensure that the same information was collected on development projects across a variety of countries. Many OGP commitments committed to bring a country’s dataset into compliance with a certain accepted standard.
Twenty-eight commitments (12%) establish or amend standards for some part of the data lifecycle. Of those commitments, five refer to standards for specific types of data in international initiatives:

- For example, the UK and Sweden both reference the International Aid Transparency Initiative (IATI) standard in their commitments, which is a framework for publishing information on development cooperation activities.³
- The United States committed to implementing the Extractive Industries Transparency Initiative (EITI) standard, whose purpose is to increase transparency and accountability in company payments and government revenues related to natural resources.⁴
- Paraguay referenced the Open Contracting Data Standard in their commitment, which enables the proactive disclosure of data on all stages of public contracting in a structured, reusable, standardized way.⁵
- Lastly, Uruguay mentions the AKOMA NTOSO standard, which enables the easy and effective search of parliamentary, legislative, and judiciary documents. Adhering to data standards facilitates the comparison of datasets and the reuse of existing applications using similar data.⁶

A.4 Frequency of updating

Seventeen commitments (seven percent) aim to routinely update or timestamp data, an essential component of keeping data platforms relevant to current data demand. Tanzania and Albania committed to publishing data in real-time, while other countries such as Greece stated intent to update on monthly basis.

A.5 Other less frequent data supply tags

The following tags were applicable to less than five percent of open data commitments:

- **Privacy restrictions**: Seven commitments (three percent) set limits on releases of personal and private data. Only five countries (Finland, Latvia, Mexico, Moldova, Spain, USA) made such commitments. Spain promised to anonymize data as they opened up their National Health Service information. Finland’s action plan aimed to strengthen public sector skills with regard to privacy and open data. Canada committed to imposing “mandatory policy requiring federal government departments and agencies to maximize the release of data and information of business value subject to applicable restrictions related to privacy, confidentiality, and security.” Among these countries’ commitments to privacy, many focused on health care data.

- **Open by design**: Another seven commitments (three percent) aimed for an “Open by Design” approach. This requires the development of standards and procedures for open data systems that ensure data is collected and distributed with reuse as an integral goal of the dataset. For example, systems that are open by design or default, often label non-public information automatically at the point of data creation. By determining functional requirements through a series of pilot projects, the Netherlands has committed to redesigning their information systems to make them open by design.

- **Inventory of databases & auditing**: Understanding what kind of data government agencies possess is fundamental to managing information as an asset.⁷ Publishing a list of government-held datasets based on audits is an important aspect to communicating how value could be created through potential data reuse. Seven commitments (three percent) set forth to take inventory of existing data assets. Another five commitments (two percent) would audit data supply and production to improve quality. For example, Ireland has outlined the following auditing commitment in its first action plan:

  An audit will be carried out of datasets available within the public service. On the basis of this audit, looking at international best practice, and in consultation with the general public, the high value datasets that should be prioritized for publication will be determined. This audit will also be an opportunity to ensure that all currently existing datasets are correctly catalogued on the Open Data Platform.

- **Feedback mechanisms**: Eight commitments (three percent) explicitly permit the ability for anyone to suggest corrections to datasets. This form of
feedback establishes a channel for suppliers of data to receive and work with user feedback either to improve existing datasets or take action on the basis of that feedback. Feedback mechanisms offer an important opportunity for data suppliers to engage with the reuse community to ensure that datasets are correct and relevant.

- Five-star data: Three commitments (one percent) explicitly reference a desire to move towards five-star linked data, a term coined by Tim Berners Lee, which means that data is not only openly accessible in the web, but also linked to other data. Interlinking provides a context for datasets, making data more easily discoverable through other sources, thereby increasing its value exponentially.8

B. Environment and context

In comparison to data supply, far fewer commitments aimed to create the legal and institutional conditions necessary for useful open data. Nonetheless, this category contains many of the innovative commitments that might serve to help open data programs avoid the “if we build it they will come” fallacy.

B.1 Coordination mechanisms

Twenty-six commitments (11%) pertain to establishing institutional capacity and/or creating institutional resources to coordinate, integrate, or manage data. Denmark, for example, intends to consolidate data on day-to-day government information from nine registers into a common “Data Distributor” system. The commitment is projected to substantially eliminate administrative costs, improve public services, and create more growth through less red tape. Many of the commitments also establish internal structures to facilitate processes for open data adoption. For instance, Ireland has committed to establishing a governance board and a steering and implementation group. Tanzania set out to create a working group to implement a national open data policy. Coordination mechanisms in various forms and contexts likely will be a necessary step to enabling government to carry out desired open data policies.

B.2 License and reuse permissions

Open data advocates commonly are opposed to licenses that impose restrictions on commercial reuse of data.10 Hence, open data advocates stress the importance of open, permissive licenses that allow combining of datasets.11

- Thirteen commitments (five percent) referred to open licenses or other types of licenses for using open data. This percentage nearly doubled between first and second action plans from to 8.4%.

- Eight commitments (three percent) specifically refer to permissions to reuse open data, including intermixing with other datasets.

- Roughly half of license commitments discuss frameworks that are being developed or implemented. Only the Czech Republic and Greece explicitly refer to ‘open licenses’ in their commitments. Latvia, Ireland, and Greece commit the licensing provisions outlined in the EU PSI Directive 2003/98/EC.

B.3 Request mechanisms and appeals process & RTI legislation

In three commitments (one percent), governments commit to establish or to improve formal requesting mechanisms for datasets. One percent of commitments specifically update their Right to Information laws to cover open data and data formats. The Czech Republic, for example, committed to publishing datasets through request mechanisms, which required an amendment of their national Freedom of Information law.

C. Use and demand

A noticeably smaller set of commitments focus on open data use and demand. These commitments aim to ensure that the public is capable of using data made available through open data programs. Such commitments might range from stoking demand by directly educating, granting, or helping intermediaries to creating systems that garner input and prioritize data priorities. Each category is described below, from those with the most tags to those with the least.

C.1 Supporting intermediaries

Thirty-two commitments (13%) of open data commitments seek to support intermediaries. The third largest proportion of tags, these OGP commitments explicitly reference efforts to promote short- or long-term activities that focus on building the capacity of intermediaries or solving specific problems with
open data. As intermediate consumers of data, infomediaries such as programmers, journalists, designers, community organizers, and civil society organizations play a fundamental role in making sense and creating value out of raw datasets.

Many countries (e.g., UK, South Korea, Denmark, Macedonia) made commitments that specifically target the economic value of open data. They target it through consultations or partnerships with private sector intermediaries. Other commitments state intent to collaborate with civil society organizations such as Brazil’s partnership with the Digital Culture Laboratory. The UK action plan committed to connect data suppliers with data users by requiring public service providers to publish annual reports on how “they are building collaborative relationships with the user community, including the commercial sector, to promote the use of [government-held] data.” About a quarter of these commitments (e.g., Costa Rica, Estonia, Italy, Paraguay) mentioned organizing events such as hackathons, public debates, contests, and workshops.

C.2 Creating public demand
Twenty-one commitments (nine percent) of open data commitments set forth measures to increase public awareness and interest for data. Many of these commitments sought to improve existing infrastructures in an attempt to make their availability more visible to the public. Other commitments spoke of more orchestrated efforts to inform the public about open data. For example, Costa Rica intends to utilize social networks and traditional media to launch a campaign to help raise public awareness about the opportunities open data provides. Many of these commitments explicitly mentioned intentions to create public demand in cooperation with intermediaries like civil society organizations and businesses. Commitments to create public demand increased two percentage points in the second round of national action plans.

C.3 Participatory prioritization
Eight commitments (three percent) establish or execute processes involving citizen feedback about which data to prioritize for production and release. For example, Ireland’s open data platform facilitates citizen feedback by enabling the public to request additional datasets. Macedonia committed to prioritize data requested through the implementation of online consultation tools. This makes it possible for citizens and companies to submit data requests, which other stakeholders can provide.

C.4 High-value content
As discussed, there is a risk that enthusiasm for open data might obscure provision of data that could have societal value. The G8 Open Data Charter requires release of high-value economic and governance data. Eight commitments (three percent) use words such as “high-value,” “core,” or “priority” to signify the contextual value of a specific type of data. The following six countries clearly committed to release high-value data, some of which relate to participatory prioritization discussed above:

- **Ireland** has committed to formulating and implementing a plan for the release of the high-value datasets in line with the G8 Open Data Charter.
- **New Zealand** has committed to the opening of priority data as identified by CSOs and business representatives.
- **Canada** prioritized easy access to high-value federal data through public consultations with citizens and civil society organizations.
- **South Korea** committed to releasing 504 types of key public data identified through government-led assessment and public feedback via consultative bodies.
- **Moldova** committed to reforming its legal framework to enable the release of 29 categories of priority government data.
- **Romania** set forth to inventory government data to identify their most relevant data assets. According to the action plan, at least 25% of datasets on the platform will have been predetermined to be of high-value.

C.5 Evangelism
In this paper, data evangelists are defined as individuals within a data provider organization responsible for promoting open data practice and ensuring that government officials use open data. Seventeen commitments (seven percent) committed to promoting open data within government. Examples include the following:
• New Zealand has committed to adhering to their national Data and Information Management Principles. They also developed and implemented a guidance and training program to support public sector agencies adopting their national open data strategy, NZGOAL.

• A large component of Spain’s award-winning Aporta project is promoting a culture of openness and data reuse, made possible through a commitment of “advisory and support actions for public entities.”

• With the goal of expanding open data across all levels of government, Costa Rica has committed to hosting an annual event for representatives from national, regional, and municipal agencies where successful initiatives will be shared to encourage the development of new sub-national projects.

The reach and impact of open data initiatives depend on the support of leaders and public officials, making data evangelism relevant to both the supply and internal demand of open data.

C.6 Improving data discoverability

Seven commitments (three percent) stated efforts to make open data more reachable by users. For example, the NHS England and the Health and Social Care Information Centre committed to ensuring that health information is easy to find. They aim to increase the availability and accessibility of open, key reference data, including geographical information.

3.3 OPEN DATA COMMITMENTS AND SECTORS

The process of creating open data can be expensive and difficult to maintain. Given the evidence of mismatch between the supply of data and the demand for data, it is important to identify where data corresponds to existing agencies and public constituencies, on the one hand, and, on the other, where it does not serve public needs. Governments may tend to publish “easy” and uncontroversial data that may not be useful to constituents.

This section looks at specific producer and user communities (sectors) that OGP commitments most often serve and crosscuts of whole-of-government reforms. Figure 5 shows how many of the commitments explicitly aim to affect the whole of government.

As Figure 5 shows, the majority of commitments do not specify any particular dataset. This is unsurprising, given the overall emphasis on technical interventions. Because sector specific commitments are a minority, it is unclear whether OGP action plans aim to get information out to the public for critical decision making.

But sector-specific data largely emphasizes budget transparency (nearly one-third of the sector-specific commitments). This is followed distantly by natural resources, health, and foreign aid, which each comprise less than 15% of commitments. The distribution of tags by sector is shown in Figure 6.
Budgetary data
Of sector-specific open data commitments, budgetary data was most heavily represented. Twenty-two commitments (31%) of the commitments applied to budgetary data. Fourteen different countries set forth to open budgetary data of varying types. Greece committed to publishing datasets on projects financed by the National Strategic Reference Framework (NSRF) to ensure that external assistance from the EU is consistent with strategic guidelines. Brazil seeks to integrate budgetary and government purchasing data to enable applications and services with the goal of creating opportunities for “more effective social control.” Roughly 25% of budgetary commitments aim to create technical platforms solely to catalogue budgetary data. For example, Costa Rica and the United States created open spending portals to catalogue budgetary data, helping to better inform citizens where taxpayer money is being spent. The Netherlands is making annual and amended budgetary data from different levels of government accessible, which enables citizens to benchmark municipal spending through budget monitoring programs like openspending.nl.

Natural resources
Nine commitments (14%) release data related to natural resources. Of these commitments, the majority relates to open data in the extractive industries like oil, gas, and mining. For example, Sierra Leone committed to publishing 70% of mining and agricultural contracts on its open data portal to encourage civic participation and minimize opportunities for corruption. The UK wants to make extractive industries more transparent and accountable worldwide by mandating company reporting on country-by-country and project-by-project transactions. Tunisia takes a different approach towards releasing natural resource data by committing to create a sustainable development observatory to publish environmental data. The purpose will be to engage the public in decision making on
environmental matters. As a new member of the Aarhus convention, Tunisia seeks to open data on natural resources to meet requirements for effective public rights.

Other sectors
The remaining 53% of sector-specific commitments were dispersed among a dozen other sectors, with health and nutrition in seven commitments (10%) and foreign aid in eight commitments (11%). Health-related commitments are wide and varied. For example, Spain intended to make their entire NHS database publically accessible to American and British efforts to “support public and private global efforts to make agriculture and nutrition data more available and easier to access.” Increasing the transparency and traceability of foreign aid spending was another noteworthy theme captured by sector-specific data. Sweden, as one of the largest donor countries as a percentage of GNI, committed to open foreign aid data in their first and second national action plans. These commitments sought to establish Openaid.se, another sector-specific platform that allows all actors to follow “when, to whom and for what purposes aid funds have been disbursed, and with what results.” By committing to open their data on external assistance and project funds, Moldova—a recipient of development assistance—intended to foster accountability through open data in the foreign aid sector.

Education, public procurement, and public service each represented six percent of commitments, followed by smaller numbers of commitments in the water and sanitation, infrastructure, public safety, citizen budgets, elections and political, citizen and immigration, as well as science technology sectors. Estonia, for instance, committed to publishing datasets on public service delivery to inform citizens about what quality level of service is promised to them. These commitments provide a glimpse into which sectors may be most affected by the open data initiatives of governments across the globe.

3.4 SECOND ACTION PLANS SEE A LIMITED SHIFT TOWARD CONTEXT-ORIENTED COMMITMENTS
It stands to reason that many governments will institute basic open data infrastructure before moving to more political processes such as regulatory reforms or participatory prioritization. Indeed, this is borne out by the data. For countries with more than one action plan, there is evidence of a shift over time toward context-oriented commitments. Figure 7 below shows this shift among the subset of countries with multiple action plans. Many countries began with few context-related commitments. In all but two cases, the percentage grew.

The area of largest growth was in context commitments. It is not that action plans had fewer data supply or data use commitments, but rather that they contained more context commitments. This is consistent with the finding that there were more open data commitments, generally.

There is interesting, but inconclusive, evidence to suggest that most countries that finish more of their first action plan commitments make more context-oriented commitments in their second action plan. It is beyond the scope of this paper to understand the drivers of this change. It is also beyond the scope of this paper to assess the effectiveness of reforms and whether they are in response to public demand.

Given the growth in context commitments, the next question is where this shift occurred between action plans. Figure 8 shows the changing emphasis among open data policy reforms. As in the first action plans, second action plans continue to emphasize intra-governmental coordination, with over 50% of context commitments focusing on these mechanisms. Dealing with licenses and reuse permissions are notable areas of significant growth from the first to second action plans. These policies can loosen the restrictions on users wishing to use government data for whatever purpose.
However, participatory prioritization commitments saw a modest decline from an already low number. Similarly, right to information reforms remained at two commitments. Each of these reforms, if implemented, would help to channel demand for data. The decline of each calls into question the degree to which OGP action plans move toward the Open Government Declaration’s requirement to incorporate demand-based systems.

What does this mean for open data in OGP? Given the sample size, the numbers are simply not robust enough to make a final assessment. However, the data begin to suggest that, as a whole, the shift toward ecosystem-based approaches has largely been in intra-governmental coordination. The data do not show general growth in commitments to stimulate or channel demand. This is not to diminish the importance of intra-governmental coordination, as it has been a critical and often missing keystone of open data programs. For example, in Kenya, the lack of internal evangelism and coordination has been cited as leading to the failure of an open data program.

While data suggest a shift to creating a demand-friendly environment, below the surface, the data reveals that most efforts still are toward intra-governmental coordination. As a consequence, the emphasis of open data, as revealed in OGP plans, is on the supply of data. Fewer than a quarter of countries create public means to identify useful data. Some argue that this is to be expected in early days, but that not supported by the evidence. It may be that without additional pressure and technical support, a large number of open data projects will occur with only government means of identifying useful data.

![Figure 7](image-url)
3.5 WHAT IS GETTING DONE? FROM IMPLEMENTATION TO OUTCOMES

This question moves beyond intent of commitments to analyze what has been accomplished in OGP. How impactful are particular commitments? Have more politicized commitments been completed?

What have OGP action plans accomplished?

Open data commitments are not implemented notably more or less frequently than other commitments in OGP. Figure 9 below shows the percentage of completed open data commitments pertaining to data use, data supply, and context compared to OGP overall and open data overall. In all core categories, more than half of the commitments saw substantial progress or better. Note that these are overlapping categories, so the general average of open data commitment decreased due to commitments that could not be described under the common assessment framework. Many of the commitments were too vague for the IRM researchers to assess completion.

Context commitments covering the scope of open data initiatives had the highest levels of substantial progress and actual completion (61%). They included the wider regulatory organizational, political, technical, social, and economic environment. Of these commitments, commitments to create coordination mechanisms and commitments affecting open data at the subnational level had the highest rate of completion, with 71% and 75% respectively. Notably, this is a small number of commitments, in a small number of countries. Time will tell whether this trend holds over a greater number of commitments.

When it came to data supply commitments, the most numerous group of commitments, completion rates were somewhat lower. While 56% made substantial progress or better, about one-third saw limited progress or had not started yet. Limited progress was
made in inventory of data. Commitments that sought to make data machine-readable were fairly evenly distributed, with 40% ‘complete’ and 30% ‘not started.’ Completion rates for data standards also represented a roughly even distribution. All commitments aiming to establish sector-specific platforms for a specific type of data were completed or substantially completed, whereas only about half (57%) of crosscutting technical platforms made the same headway.

Among tags for data supply, commitments related to technical platforms and data standards (the two most common) were completed more often. However, sector-specific platforms have the highest rates of substantial completion or better. This is likely because platforms dedicated to a specific type of data typically are easier to establish than platforms aiming to catalogue a diversity of dataset types. While half of commitments that set out to amend data standards enjoyed substantial progress or full completion, the other half only made limited progress or had not started yet. The majority of commitments that sought to publish data in a timely manner made substantial headway; however, 27% were coded as not started—the largest percentage of all data supply commitments. Other less frequent data supply tags such as taking inventory of databases, auditing, and five stars applied to a very small number of commitments (n=5).
What is the potential impact of OGP open data reforms?
The IRM researchers assess OGP action plan commitments for their potential impact on the relevant sector. To assess this, each researcher identifies the status quo in the relevant policy area. In this case, they identify either open data policy as a whole or, where commitments are sector-relevant, for that particular sector. They then identify the degree to which commitments will change business as usual if implemented. Commitments are given one of four rankings: no impact (none), minor impact (a positive, but minor incremental step), moderate impact (a positive and notable step), or transformative (changing business as usual). This is an evidence-based, but nonetheless subjective, assessment of the potential impact of commitments. Because it may have less inter-coder reliability, the following findings are offered more tenuously.

When compared to the 800 OGP commitments as a whole, open data commitments have more potential impact than other OGP commitments, although not by a statistically significant amount. Figure 11 below compares the assessments of commitments’ potential impact. The IRM researchers marked 48 of the 69 (70%) open data commitments as having either moderate or transformative potential impact compared to 483 of 783 (62%) general commitments. Further data will confirm if this trend holds true. If it does hold, the assessment of higher potential impact of open data commitments might be because the baseline performance on open data for many countries is very low. Alternately, it may suggest that what some see as a largely technical exercise in fact has significant policy impact. Some have argued that otherwise difficult reforms can be achieved under the guise of technological reforms. Specifically, by presenting open data reforms as a technical fix, high-value data might be released that otherwise would not have been released.
Perhaps more interesting is that context commitments, as a group, are less transformative than other open data commitments. No context commitment was marked as having transformative potential impact. (See Figure 11 below.) As mentioned before, many of the commitments in this category focused on intra-governmental coordination mechanisms, rather than end-user outputs. This might explain some of the variation. Clearly, coordination mechanisms are essential for producing useful, sustainable open data. The low potential impact ratings they received likely indicate the IRM researchers’ perceptions that, as stand-alone interventions, they are not transformative.

It is important to see if the most far-reaching, transformative commitments show different rates of implementation between open data and general OGP commitments. If the hypothesis is correct, then open data commitments with “moderate” and “transformative” potential impact should show higher rates of completion. However, as Figure 12 below shows, differences are small and likely insignificant. Forty-five percent of such commitments saw significant or better progress, compared to 30% of regular commitments.
Figure 12 | Little variation in completion between higher impact open data commitments and regular OGP commitments

3 See International Aid Transparency Initiative (IATI), http://iatistandard.org/.
4 See the Extractive Industries Transparency Initiative (EITI), https://eiti.org/eiti.
10 Open Knowledge Foundation, 2006.
IV | CONCLUSIONS

To fulfill the promise of opening government to ensure better political, social, and economic outcomes, OGP participating countries will need to invest in strong, multi-dimensional open data policies. While much of the data in this paper shows that it is too early to judge the outcomes of open data policy as reflected in OGP, it is clear that OGP action plans, as currently drafted, do not meet the promise of aligning supply and demand as laid out in the Open Government Declaration. At the same time, action plans are full of innovative commitments that need to be shared across national contexts.

At this juncture, there are two major challenges for open data in OGP:

• **Formulating and executing commitments to align supply and demand.** As it stands, open data programs featured in OGP need to establish more clearly the usefulness of data to key public constituencies. Future commitments will need to improve processes to identify high-value data sets, to establish processes for participatory prioritization, and to strengthen request means, including right to information.

• **Formulating and executing commitments to articulate open data with other OGP values.** Open data commitments may improve market efficiency or improve social outcomes, but if they are to improve governance, they should clearly have a clear relation to public processes for decision making (participation) and with public accountability mechanisms.

To better achieve these goals, we offer the following recommendations.

**RECOMMENDATIONS**

**For practitioners**
The following recommendations can be carried out by OGP governments, interested civil society organizations, multi-laterals and, perhaps most critically, by OGP’s Open Data Working Group, a multi-sector collaborative group promoting open data reforms in OGP.

• **Assembling emerging best practices:** In general, there is still much room for growth in promoting OGP values for more sustainable, useful, and usable open data policies. In particular, expanding context and data use commitments beyond the small group of innovative countries will be key. This could take several forms:

  o Systematically providing feedback on OGP action plans using third-party soft instruments such as the 10-point checklist at the heart of the Open Data Barometer or the G8 Open Data Charter.

  o Working to ensure that “best practices” are context appropriate, as a good practice in one area may not be as useful in another.

• **Beyond low-hanging fruit:** Sharing successes around commitments promoting politically and socially oriented outcomes.

  o Case studies: This may include a collection of stories and case studies on open data for accountability in key decision making sectors, including politically difficult information such as budgetary decision making, regulatory decisions, law enforcement, and the operations of the judiciary.

  o OGP evangelism: Within OGP, the most innovative countries may highlight open data for answerability and accountability of officials. This may include regional networks based on common interests, as expressed in existing action plans, such as civic participation in Latin America and economic growth or investment in Eastern Europe.

  o Toward open data for participation decision making and accountability: OGP commitment coverage may be expanded to open data
initiatives for important decision making sectors such as justice institutions, autonomous/independent institutions, auditors, and controllers.

**Encouraging high-value data through feedback loops:**

- Active engagement with subnational governments: Many of the most useful data sets are collected and used at the local level and, while local level activities are represented among open data commitments, collection and harmonization efforts still lag behind.
- Engaging sectors: OGP stakeholders should discuss and assess the relative emphasis between sectoral and crosscutting or whole-of-government approaches. Evidence suggests that there may be value in scaling down or decentralizing the identification of high-value data.
- Feedback mechanisms for sustainability and usefulness: To prevent unsustainable investment in open data, OGP countries may enhance peer exchange on how to identify high-value data, how to establish and maintain participatory mechanisms for prioritization, and how to expand information request mechanisms, including right to information reforms.

**Improving OGP commitments:** OGP countries as a whole need to improve commitment relevance and specificity. Many commitments do not make data public and are unclear, therefore evading accountability. To improve this, continued efforts at improving commitment writing and action planning are key. The OGP Support Unit can play a key informant role as civil society and government achieve this aim.

**Mainstreaming open data with open decision making and public accountability:** Open data activities need to be integrated more clearly into other forums that may lack data. As it stands, many reforms run in parallel, and open data is not used for public decision making or to hold officials to account. OGP countries should lead in public, open data-informed decision making and accountability.

**Engaging on standards:** While many sector-based technical platforms saw high rates of implementation, greater attention to standards may be paid, as appropriate, to key data sets. Governments have emphasized budgets, foreign assistance, health, and natural resources, although there may be other sectors worthy of attention. Specific assistance may be provided for the following:
- Dealing with interagency coordination challenges.
- Support for conversion of old data to new standards.
- Diplomatic outreach between governments to remove political roadblocks, as appropriate.

**For researchers**

- Using OGP data on open data: Interested researchers can go deeper into OGP data using the OGP Explorer and the open data commitments database http://bit.ly/1PN5vyj.

- Exploring the question: “Why these commitments?” More qualitative research is needed on open data and open data commitments that look at political actors, institutions, and opportunities.

- Synthesizing research from other fields on aligning demand and supply: Other fields (such as information management, library science, and environmental policy) have long struggled with how best to align supply and demand with data. Rather than reinvent the wheel, many lessons likely can be transferred from these fields to the field of open data.

- Understanding potential and real impacts of reforms: A number of next steps can be taken to understand better the actual impacts of open data commitments:
  - Revisiting the existing data as the sample size grows.
Amassing common metrics—however flawed—can help to compare outcomes and begin a debate on how to measure open data impacts. These could include:

- Measures of website traffic
- Number of known applications
- Journalistic use of open data

Improving the IRM assessment of potential impact to ensure inter-coder reliability (while maintaining low cost). This potentially could include survey methods, multiple assessors, or the use of third-party indicators.
## Annex | Tag Definitions for OGP Open Data Commitments

<table>
<thead>
<tr>
<th>COMMITMENT</th>
<th>TAG</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transverse categories</strong></td>
<td>Crosscutting</td>
<td>Commitments that affect executive-wide policy.</td>
</tr>
<tr>
<td></td>
<td>Sector-specific</td>
<td>Commitments that explicitly affect a specific type of open data or data pertaining to specific sectors, ministries, or agencies.</td>
</tr>
<tr>
<td></td>
<td>State or municipal</td>
<td>Commitments that affect open data at the subnational level.</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Coordination mechanisms</td>
<td>Commitments that establish institutional capacity and/or create institutional resources to coordinate, integrate, or manage data.</td>
</tr>
<tr>
<td></td>
<td>Request mechanisms &amp; appeals process</td>
<td>Commitments that establish or improve formal requesting mechanisms for datasets.</td>
</tr>
<tr>
<td></td>
<td>RTI legislation</td>
<td>Commitments that specifically update RTI to cover data and data format.</td>
</tr>
<tr>
<td></td>
<td>Participatory prioritization</td>
<td>Commitments that establish or execute a process involving citizen feedback about which data to prioritize, production, and release.</td>
</tr>
<tr>
<td></td>
<td>Reuse permissions</td>
<td>Commitments that affect the public’s ability to reuse open data, including intermixing with other data sets.</td>
</tr>
<tr>
<td></td>
<td>License</td>
<td>Commitments that have to do with open licenses or other types of licenses for the use of open data.</td>
</tr>
<tr>
<td></td>
<td>Privacy restrictions</td>
<td>Commitments that set limits on releases of personal and private data.</td>
</tr>
<tr>
<td><strong>Data supply</strong></td>
<td>&quot;Open by Design&quot;</td>
<td>Commitments that commit government to develop standards and procedures for the development of open data systems or tools that ensure that data is collected and distributed with reuse as an integral goal of the dataset.</td>
</tr>
<tr>
<td></td>
<td>Technical platforms</td>
<td>Commitments that commit government to establish open data platforms, collection systems, or record-keeping systems.</td>
</tr>
<tr>
<td></td>
<td>Sector-specific platforms</td>
<td>Commitments that establish open data platforms, collection systems, or record-keeping systems exclusively for sector-specific data or for specific data practices.</td>
</tr>
<tr>
<td></td>
<td>Machine readability</td>
<td>Commitments that explicitly reference data in machine-readable format (any specific formats e.g. CSV, JSON, XML referenced shall be noted).</td>
</tr>
<tr>
<td></td>
<td>Data standards</td>
<td>Commitments that either set forth or amend standards for any part of the data lifecycle.</td>
</tr>
<tr>
<td></td>
<td>Openness monitoring</td>
<td>Commitments that commit governments to develop or to improve a system for rating various data assets as to the degree of openness.</td>
</tr>
<tr>
<td></td>
<td>Five stars of open data</td>
<td>Commitments that explicitly reference a desire to move towards five-star linked data.</td>
</tr>
<tr>
<td></td>
<td>Auditing</td>
<td>Commitments that establish or amend a process to audit data supply and production with an eye to improving quality.</td>
</tr>
<tr>
<td></td>
<td>Feedback mechanisms</td>
<td>Commitments that allow anyone to make corrections to data sets.</td>
</tr>
<tr>
<td>COMMITMENT</td>
<td>TAG</td>
<td>DEFINITION</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Data supply (cont.)</td>
<td>Frequency of updating</td>
<td>Commitments that set forth commitments to routinely update and/or timestamp data.</td>
</tr>
<tr>
<td></td>
<td>Inventory of databases</td>
<td>Commitments that commit a government to do an inventory of existing data assets.</td>
</tr>
<tr>
<td>Use</td>
<td>Improving discoverability</td>
<td>Commitments that would make data more reachable to users.</td>
</tr>
<tr>
<td></td>
<td>Supporting intermediaries</td>
<td>Commitments that promote short- or long-term activities that focus on building the capacity of intermediaries or solving specific problems with open data.</td>
</tr>
<tr>
<td></td>
<td>Evangelism</td>
<td>Commitments that attempt to promote open data within government.</td>
</tr>
<tr>
<td></td>
<td>Creating public demand</td>
<td>Commitments that set forth measures to increase public awareness and interest for data.</td>
</tr>
<tr>
<td></td>
<td>High-value content</td>
<td>Commitments that use words like “high-value,” “core,” or “priority” that signify the contextual value of a specific type of data.</td>
</tr>
</tbody>
</table>
ABOUT THE AUTHORS

Sonia Khan has worked in civic technology and legislative politics at organizations like the Open Knowledge Foundation, MoveOn.org, Capitol Hill, and as a U.S. Fellow in the German Parliament. Sonia holds a Master’s in Public Policy from the Hertie School of Governance in Berlin and Fundação Getulio Vargas in São Paulo. She graduated with a B.A. in Political Science from the University of California, Berkeley.

Joseph Foti is the Program Director of the Independent Reporting Mechanism, the Open Government Partnership (OGP) accountability mechanism. Prior to OGP, he worked at the World Resources Institute for the Access Initiative, a network working on access to information, public participation, and access to justice for sustainable development.

The authors would like to thank Deborah Budlender, Tim Davies, Hille Hinsburg, Anuradha Joshi, Dietlind Lerner, Gerardo Munck, and Tiago Peixoto for their invaluable comments and insight.