



Open Contracting Partnership

Using it, not losing it, over procurement data

Research Report

Preamble

More open procurement policies and processes can lead to efficiencies, savings, better quality goods and services, greater citizen participation, and other positive benefits.

To maximize the potential benefits that open contracting unlocks, its adoption needs to be goal-oriented and intentional. From the start, we want publishers to consider not just sharing open data in general, but map the specific fields and features of the data that they plan to publish with its demand (ie. the needs of the end users, thinking through how and what they are going to do with it) and its supply (ie. when it will come from, how regularly it will be updated etc).

The Open Contracting Data Standard (OCDS) provides a common core foundation and framework for publishing data on all stages of a contracting process, from planning through to implementation. It allows publishers to start simple, and improve their data publication over time.

However, few organisations can produce 'perfect' data right away that will meet every possible user need. That's why it's important to set priorities and plan for publication based on locally identified and prioritized user needs. Publishers should articulate clear end goals, and then check data collection, processing and publication against those goals.

Research question

How to follow open contracting principles depends largely on *why* actors want to do so; the details of the intervention depend heavily on the intended result. In order to understand the *why* and *how* of open contracting in action, the Open Contracting Partnership (OCP) interviewed the leads of five diverse open contracting projects from across the globe to understand what requirements are critical for their work.

We then consolidated this information into a list of factors across the procurement process that support a variety of use cases. From these lessons, we will work to update the OCP and OCDS materials to better serve users- and goal-driven implementation.

Methodology

We set out to explore how providers and users of open contracting data and information have worked to match data production to user needs. To ensure a wide geographic and thematic spread, we began the interviewee selection process by making

a master list of 20 projects involving either open contracting data or OCDS data specifically, we focussed on five with clear use cases where some preliminary results had been obtained. We then interviewed representatives of those projects, following a semi-structured format; you can see the standardized questions in [Appendix A](#).

The interviewed parties were:

- Patrick M. Lozeau, Government of the City of Montreal (Montreal)
- Shweta Marathe, Research Officer, Support for Advocacy and Training to Health Initiatives (SATHI) (India)
- Carlene van der Westhuizen: Research Analyst, and Albert van Zyl, Country Manager, International Budget Partnership (IBP) South Africa (South Africa)
- Ian Makgill, Founder, OpenOpps.com (United Kingdom)
- Gilbert Sendugwa, Head of Secretariat and Coordinator, and Sarah Faguet, Program Officer, African Freedom for Information Center (AFIC) (Uganda)

We explored their use cases; how they worked towards their intended goal; the stakeholder, publication, data and information requirements necessary to meet that goal; and the witnessed and anticipated results. By collating this information, we extracted valuable lessons about priority data fields and contextual factors that support a variety of use cases.

From the interviews, we distilled a set of common requirements relating to data, information, publication practices, and stakeholder engagement. We then coded interviews against these identified requirements, noting the frequency with which each was noted across interviews.

Results

OCDS was designed around four high-level use-cases, based on a set of case studies described in Lindsey Marchessault's 2014 [demand-side assessment](#). This document concludes with the identification of 12 priority requirements, selecting from over 150 requirements covered in the initial standard development process.

In the cases considered for this research, we explored the specific experiences of cross-sectoral publishers and users of open contracting information. Below are brief descriptions of each project; we describe each case in full in Appendix B.

- **The City of Montreal** was one of the first cities to adopt the OCDS as part of a portal that publishes information on past contracts. Although this does not provide information on upcoming tenders, this information is still seen as relevant to the primary use cases of improving market opportunities. It also drives improvements in service quality, particularly by allowing both internal staff and external contractors to look up prior contracts and identify potential bidders.
- **Support for Advocacy and Training to Health Initiatives (SATHI)** has combined policy and data work to improve the efficiency of the procurement of

medicines and promote savings, value for money, and public integrity. Through their work benchmarking Indian states against one another and advocating for the replication of promising practices, SATHI has formed cross-sectoral collaborations that aim to make medicine procurement more demand-driven.

- **International Budget Partnership South Africa (IBP)** has championed the improvement of the quality of goods and services in marginalized communities in South Africa. Through supporting individuals and organizations to find critical information and data on public contracts, IBP promotes feedback loops between citizens and their governments, especially through citizen monitoring of projects.
- **OpenOpps.com** enables its tool users to dig deeper into the procurement process through the innovative linking of information and data across the procurement process. The team links contracting, spending, buyer, and supplier data and offers an OCDS output to promote business intelligence analyses and promote greater accountability regarding what governments spend and how.
- **African Freedom for Information Center's (AFIC)** uses open contracting data to monitor and evaluate procurement procedures and the execution of contracts and then provides feedback directly to procuring entities on how to improve the performance of future contracting processes. In parallel, AFIC works to empower citizens to take a more active role in monitoring how their governments spend public funds.

We collected information about different types of requirements necessary to meet particular use cases. We collected requirements into four groups:

- **Stakeholder requirements:** Opportunities for engagement across sectors regarding data publication
- **Publication requirements:** Particular ways in which data and information should be provided publicly
- **Data requirements:** Specific data fields
- **Information requirements:** Documents, narratives or semi-structured information

Interview summaries are provided in [Appendix B](#).

Requirements expressed by interviewees

Stakeholder requirements	Noted by # of interviewees
Feedback mechanisms that allow for cross-sectoral interaction	5
Direct communication between different government agencies	4
Direct communication between government agencies and end data users from other sectors	3
Direct communication between buyers	1
Spaces for sector-specific meetings and reviews	1
Spaces for policy forums and formal engagements	1
Spaces for regional networking	1
Holistic outreach campaigns that meet needs of end users	1

Publication requirements	Noted by # of interviewees
Timely (ideally real-time) release of procurement documents and data	5
Ability to link data related budget, contracting, and expenditures	4
Proactive publication based on the stated needs of end users across public, private sectors	3
Data format standardization and/or naming conventions	2
Clear delegation of responsibility for responding to civil feedback at the local and national government levels	1
Centralized publication of procurement documents, information, and/or data	1
Clear delegation of responsibility for responding to civil feedback at the local and national government levels	1
Technical capacity training for publishers	1
Sufficient staff and technical capacity to publish correct data in correct format	1
Clear publication strategies and information outreach campaigns	1

Data requirements	Noted by # of interviewees		
Amounts across the procurement cycle	4	Selection criteria	1
Technical specifications	4	Bid submission date	1
Budget amount	3	Award date	1
Item name	3	Supplier performance rating	1
Buyer name or identifier	3	Item quantity	1
Item name	3	Demand registration date	1
Tenderer names or identifiers	2	Contract start date	1
Tender period start date	2	Contract end date	1
Tender period end date	2	SME classification	1
Procurement method	2	Contract amendment document	1
Procurement method rationale	2	Eligibility criteria	1
Number of tenderers	2	Disqualifications	1
Item description	2	Procurement plan document	1
Award amount	2	Budget rationale	1
Transaction amounts	2	Budget source	1
Milestone descriptions	2	Tender notice release date	1
Item unit price	2	Transaction dates	1
Supplier name or identifier	2	Contract amendment date	1
Milestone dates	2	Contract amendment changes	1
		Contract amendment rationale	1

Information requirements	Noted by # of interviewees
Tender/technical specifications document	3
Implementation documentation, including milestone documentation or performance evaluations	2
Extension or Amendment documents	2
Selection criteria documentation	1
Supplier performance information and documents	1
Legally mandated publishing requirements	1
Award notice documents	1
Qualifications documentation	1
Procurement plan document	1

Discussion

Across the cases explored, we saw a number of important themes linking open contracting interventions with real-world use cases:

1. **Quality over quantity is the way to go:** It's not realistic (or perhaps even ultimately useful) to ask publishers to publish all 300+ data fields contained within the OCDS. It is much more recommendable to ask end users directly about their needs and prioritize the complete and consistent publication of the data fields associated with those needs.

Through these interviews, we found some of the most important data fields are the most basic; parties (buyers, tenderers, and suppliers), especially through the use of unique identifiers, amounts along the procurement chain, dates along the procurement chain are all of critical value to end users. These are among the most basic fields many publishers include in their publication plans. Slightly more advanced information related to items and both tender and implementation milestones is also supremely important, and supports more in-depth analysis of VfM and service quality.

2. **Sooner is better:** Timely (ideally real-time) document and data releases are a critically important publication requirement, as indicated by all five interviewees. This is especially true for the calculating of "red flags" as we explained in our [previous guide](#) (and its associated [red flags to OCDS mapping](#)) and in the monitoring of goods and service provision.

The sooner open contracting data are available for each phase of the contracting process, the more proactive use-case oriented analyses can be. For example, real time access to implementation data can allow monitoring groups to spot inconsistencies between the planned implementation schedule and the real implementation progress, which can enable mid-course correction of the problem. Should such data only be available upon completion of the project, it would be impossible to monitor the implementation issues and resolve the problem.

3. **Data linking is the key to open contracting:** Four out of five interviewees noted that linking data related budget, contracting, and expenditures directly supports the achievement of their intended results. For this reason, the OCDS and its extensions allow for the publication of robust information across all five phases of the contracting process: from *planning*, to contracting (*tender, award, contract*), to *implementation*.

Linking up data from across the procurement chain allows actors across sectors to develop a deeper understanding of a contracting process and run a variety of analyses across all of the five mentioned use cases. It is for this reason that the unique identifier of the contracting process including in the OCDS scheme (the OCID) is so important: the OCID allows for the linking of information from the start of a contracting procedure to its end.

4. **Feedback matters:** All five interviewees feedback mechanisms that allow for intra- and cross-sectoral interaction as a key stakeholder requirement for use cases, and the majority of the others explicitly stated a need for communication between publishing agencies or publishing agencies and end users.

Institutionalized feedback mechanisms, particularly those that enable direct interaction between publishers and end users, are key for a variety of use cases. This communication enables publishers to identify the most pressing user needs and prioritize the publication of that information or data. This results in proactive, end user-focused publication. If the data published (the supply) doesn't match user needs (the demand), the value of these data are decreased, and end users are less likely to use and reuse the data.

Conclusions and future work

Open contracting holds user needs at its core; at every moment, open contracting champions strive to publish data and information that users most need in accessible and end user-oriented formats. Similarly, the OCP strives to incorporate user feedback and real life case studies into its tool and documentation development process. We plan to use the information collected throughout these interviews to center our materials and resources on use cases and user needs. Specifically, we will look into incorporating these lessons about which data requirements and contextual factors are most helpful to end users of open contracting data to:

- Conduct a mapping of use case-oriented indicators to OCDS fields
- Update our OCDS documentation to include more and deeper information on use cases
- Rework our methodology for assessing data quality to more heavily include use case-oriented thinking
- Provide better and more actionable quality technical and policy advice to data publishers that centers on intended results
- Conduct deeper research into unanswered questions that surfaced through the interviews about data quality needs (e.g. timeliness, consistency, comprehensiveness) and process needs (e.g. how to design different feedback mechanisms)

Appendix A: Interview Questions

Introductory questions (asked of all interviewees)

1. Project summary: What have you been working on related to open contracting? Tell me about the project?
2. What is the impact or result that you are trying to achieve?
3. How have you been using open contracting information or data as part of your approach?
4. Which data elements or characteristics have been most important to your monitoring work (data fields, formats, other characteristics)?
5. Do you have any tools, methodologies or documentation about your project that you could share with me?
6. Have you achieved any success? How are you measuring success?
7. Would you be alright for me to follow up with more questions once I have reviewed the materials that you have shared?

Advanced questions (asked where applicable)

8. Do you use OCDS data? If so, what has been useful about it? what have the challenges been? If not, what were challenges did you face in standardizing data for use, and how did you overcome those?
9. What would you like to monitor that you can't currently because of a.) data gaps or b.) challenges with using OCDS?
10. Follow up on Q4. What are largest opportunities for improvement given better information or data access?
11. How have you thought about replicability? Could your project be repeated or scaled up?
12. How have you thought about sustainability? How can the project last over time?
13. How have you thought about engaging users (through feedback loops)? Do you have a feedback system formalized?
14. What advice do you have for implementers who are beginning to explore how publishing open contracting data can lead to results? What are most important things to monitor and why?
15. Would you like to share anything else?

Appendix B: Interview Summaries

Government of the City of Montreal (Montreal): Patrick M. Lozeau

Main use cases: Market opportunity; Service quality; Internal efficiency; Transparency through data linking

Summary: Maintaining strong relationships with the end user and planning data publication around user needs have been at the center of the City of Montreal's open data work. To assess how their work is currently going and make informed decisions

about what information to prioritize publishing next, the team is dedicated to finding out who is making use of the data, and how. To do so, the City has directly contacted users from civil society, journalism, private sector, and within government agencies to see what their data needs are and speed the release of that information.

Initial results:

Market opportunity: Montreal contract providers use the portal to look up prior contracts to see which bidders are likely to submit bids for their current or upcoming tenders. The portal contains key information on prior contracts disaggregated by department (procuring entity) and type of procurement services (description and item). Approximately 40 to 50% of the website traffic comes from the City of Montreal, indicating that the portal is being used largely for internal purposes.

Quality of services: A key concern was avoid companies who have a reputation for poor quality. Some buyers have indicated they know some companies are expert at writing stellar bid proposals, but underperform during the implementation process. As a temporary solution, some have begun to include more detailed evaluation criteria (selection criteria) to ensure the best companies receive contracts.

Intended long term results:

Service quality: As a longer term solution, the City expressed keen interest in tracking different types of implementation data. Currently, the best source of information is a publicly available include a "grey list" and "blacklist" that highlight underperforming or sanctioned businesses. Suppliers on these lists have either been flagged for "unsatisfactory performance" or, in the most severe cases, have been barred from submitting future bids for disrespecting Montreal's contracting policy. These information sources demonstrate the commitment of Montreal to defending citizens' space in the contracting sphere.

Market opportunity: In urbanism and planning projects, many buyers wanted to analyze which other buyers or procuring entities (buyer name, procuring entity name) had contracts for similar projects (project description). They wanted to know detailed information about the tender process for those contracting processes, such as who submitted bid proposals (tenderer name), the total number of tenderers (number of tenderers) and the budgeted, awarded, and contracted totals (budget amount, award amount, contract amount).

Accountability and transparency through data linking: A priority area for improvement is the tracking of fiscal implementation data. Currently, the City is exploring ways to merge billing system information into the open contracting site. There remains no easy way to compare the contracted amount (contracted amount) and billed amount (transaction amount) to see if costs are inside the contracted limit, or over. Linking the billing and contracting sites will require cleaning and normalization of the data, particularly the names of the companies (supplier name). The existence only sting (non-numerical) codes for each company leads to major problems with linking up the data, as small differences in the string codes can create major data mismatches. Montreal expressed keen interest in using a standardized, numerical company code (supplier ID).

Requirements			
Stakeholder	Publication	Data	Information
<ul style="list-style-type: none"> -Direct communication between different government agencies -Direct communication between government agencies and end data users from civil society and private sectors -Feedback mechanisms such as civic meetings that allow for cross-sectoral interaction 	<ul style="list-style-type: none"> -Proactive publication based on the stated needs of end users across public, private, and civil society sectors -Timely (ideally real-time) release of procurement documents and data -Ability to link data related budget, contracting, and expenditures 	<ul style="list-style-type: none"> Service quality: <ul style="list-style-type: none"> -Selection criteria -Supplier name -Information on supplier performance Market opportunity: <ul style="list-style-type: none"> -Procuring entity name -Buyer name -Item name -Item description -Tenderer names -Supplier name -Number of tenderers -Budget amount -Award amount -Contract amount Accountability and transparency through data linking <ul style="list-style-type: none"> -Budget amount -Award amount -Contract amount -Transaction amount 	<ul style="list-style-type: none"> Service quality -Tender specifications document -Selection criteria documentation -Supplier performance information and documents

Support for Advocacy and Training to Health Initiatives (SATHI) (India): Shweta Marathe, Research Officer

Main use cases: Public integrity; Value for money; Internal efficiency; Correcting market inefficiencies (matching demand and supply)

Summary: SATHI began its current work on medical procurement in 2010 to improve medical procurement and the delivery of medical services and supplies. Medical procurement has various serious implications for the users of public health services and facilities in India. Many users of these services face heavy out of pocket expenditures on medicines, in the range of 70% expenditures on medicine. This initiative focuses on the availability of essential medicines in public health centers. Furthermore, many public health centers showcase a non-availability of medicines, even those considered basic or critically necessary.

To improve the lives of public health service and supply users, SATHI developed a strategy to investigate the underlying causes of these high out of pocket expenses and medicine non-availability. They initiated two case studies of public health facilities at the village level to find out what factors drive these barriers to quality service access, apart from simply a limited budget.

Initial results:

Public integrity: SATHI noted that since the time of the study, state government has taken some steps with regard to medicine procurement and distribution system with the aim of improving availability of essential medicines in PHCs. In July 2011, as a step towards increasing transparency, the State Government has taken the decision of employing

e-tendering system for procurement of medicines. Some other steps along with e-tendering include; implementation of e-aushadhi, an online information management system regarding stock position of medicines, modification in list of essential medicines, formation of eight district warehouses in the state, and quality testing after delivery of medicines in the warehouses were also employed by the state. SATHI is wary of claiming credit for these positive changes however, consistent advocacy efforts by SATHI along with various civil society organizations, health activists and academicians for revamp of medicine procurement and distribution system needs to be noted here.

Value for money: The second approach requires understanding the operational, policy, and technical challenges of the procurement and public health systems. To gain a deeper understanding of how procurement works at the local level. To conduct this analysis, SATHI collected data points about the medicine name (item name), date of issue of the tender (tender period state date), defined by date of publishing in the newspaper, the tender submission deadline (tender period end date) and dates of bids (bid submission date), awarded amount and award date, and cost per unit (unit price) information. They found that Tamil Nadu spends 20 to 40 times less than Maharashtra on the same medicines.

Internal efficiency and correcting market inefficiencies: SATHI concluded that there are two main approaches that will make the public procurement more demand driven. The first is having consistent information on medicine stock, including the medicine name (item name), the amount of each medicine procured (quantity invoiced), and the amount of each medicine demanded, as quantified in procurement reports. This information will highlight any differences between the demand and supply of medicines. Another key set of data points involves the date of supply (implementation milestone date) and the date the demand as quantified in procurement reports. This date information will help assess the existence of any delays in the procurement of these medicines, which may highlight opportunities for improving the internal efficiency of the procurement of medicines.

Intended long term results:

Public integrity: The team will continue advocating for the implementation of transparency measures in the procurement of public health goods and services to encourage public monitoring.

Value for money: By studying trends in unit prices within and between communities, SATHI has pinpointed root causes of these inconsistencies and formed partnerships with actors from across sectors to correct these problems. SATHI hopes to continue increasing demand for revamping the procurement and distribution system based on the Tamil Nadu model.

Internal efficiency and correcting market inefficiencies: Now that SATHI has identified concrete approaches to detecting and correcting internal and market efficiencies, SATHI will continue analyzing currently available data to assess efficiencies and advocate for improvements in the procurement of medicines. They will also advocate for improved data quality and quantity to allow for heightened monitoring of procurement processes. SATHI hopes to continue monitoring medicine availability in public health facilities and also build the capacity of CSOs at the village level to do so.

Requirements			
Stakeholder	Publication	Data	Information
-Direct communication between different government agencies	-Proactive publication based on the stated needs of end users across public, private, and civil society sectors	Public integrity -Item name -Supplier name -Unit price	
-Direct communication among the staff of local clinics and between the staff of nearby clinics	-Timely (ideally real-time) release of procurement documents and data and documents and data related to public demand and current stock	Value for money: -Item name -Tender period state date -Tender period end date -Bid submission date -Awarded amount -Award date -Unit price	
-Direct communication between government agencies and end data users from civil society and private sectors	-Ability to link data related to public demand, contracting, and, expenditures and item stock at clinic level	Correcting market inefficiencies and promoting internal efficiency: -Item name -Unit count -Milestone date -Demand registration data	
-Feedback mechanisms such as civic meetings that allow for cross-sectoral interaction			

International Budget Partnership South Africa (IBP) (South Africa): Carlene van der Westhuizen: Research Analyst, and Albert van Zyl, Country Manager

Main use cases: Market opportunity; Service quality; Public integrity

Summary: Citizen monitoring of public goods and services is at the heart of International Budget Partnership (IBP) South Africa's open contracting work. IBP supports grassroots organizations and movements that engage directly with government to improve the quality of civil goods and service provision, such as roads or sanitation facilities. As experts in contract monitoring, they help organizations to find and understand procurement documents to see if the services provided meet the standards defined through the contracting process. The end result is creating feedback loops between government, civil society organizations, and the public to ensure the effective use of funds.

Even though there are mandatory publishing requirements in place, including a requirement that the national contracting portal should be a repository of tender documents information, most documents don't end on the national portal. Some tender documents appear only on local portals, or appear in both portals but with divergent information. In many cases, the contracts don't appear on any portal at all, which makes monitoring their delivery extremely challenging. Lastly, IBP focuses on poor, marginalized, and oftentimes largely illiterate communities. IBP hopes to close this gap by advocating for the timely, reliable, and centralized publication of the right kinds of information to empower users to ask for better services and track their provision when promised.

Initial results:

Service quality: In one example, in an informal settlement community east of Johannesburg, the government contract specified the provision of toilets temporary chemical toilets that lock from the inside. Members of the community inspected these toilets as part of a social audit and found that the toilets did not lock from inside, which presented a health and safety hazard. With the support of IBP, the citizen monitoring group raised their concerns with the local government, and the service provider replaced these faulty toilets with the correct model. From this and other cases, IBP extracted knowledge about which information types are key for communities interested in monitoring service quality. These requirements include bid specifications and a centralized list of current contracts that specify when the contract is to end (contract end date), and when it'll go to tender again (tender start date).

Public integrity and market opportunity: IBP's work has also allowed them to summarize information on information needs for evaluating public integrity and market opportunity. Here, users need to know if a tender used an open tender process (procurement method) and why or why not (procurement method rationale), as well as have information on extensions, which is typically missing (contracts amendments).

Intended long term results:

Service quality: In an ideal scenario, these communities could access information about the timeline of all phases (tender start and end dates, award date, contract start and end dates), and what should be public at each point (the legally mandated publishing requirements.) This would enable them to compare what is actually being published against the mandated information requirements, which would enable them to spot and hopefully correct information missingness. Past the timeline details, tracking the quality of services and goods requires information on what the final good or service service is supposed to look like (technical specifications). Key information for signed contracts includes a description of each phase of development, and by when those phases should be completed (milestone dates & milestone descriptions).

Requirements			
Stakeholder	Publication	Data	Information
-Direct communication between different government agencies	-Proactive publication based on the stated needs of end users across public, private, and civil society sectors	Service quality: -Tender start date -Tender end date -Contract start date -Contract end date	Service quality: -Legally mandated publishing requirements -Technical specifications document
-Direct communication between government agencies and end data users from civil society and private sectors	-Timely (ideally real-time) release of procurement documents and data	-Legally mandated publishing requirements -Technical specifications -Milestone descriptions -Milestone dates	-Milestone documentation Public integrity and market opportunity: -Amendment documents
-Feedback mechanisms that connect underrepresented communities, advocacy organizations specializing in community needs, and procurement authorities	-Ability to link data related budget, contracting, and expenditures -Centralized publication of procurement documents, information, data -Clear delegation of responsibility for responding to civil feedback at the local and national government levels	Public integrity and market opportunity: -Procurement method -Procurement method rational -Contracts amendments	

OpenOpps.com (United Kingdom): Ian Makgill, Founder

Main use cases: Market opportunity; Accountability and transparency through linking data

Summary: OpenOpps.com's data-centered approach to analyzing public spending has culminated in a tool that enable end users to interact with and visualize different data related to public spending. OpenOpps.com compiles tender and transaction information from local and national UK procurement agencies, cleans this information, and consolidates the data into one central place. Linking up contracting, spending, buyer, and supplier data from OpenCorporates and offering an OCDS output allows for easy public monitoring of what government spends, and how. Apart from providing the public a method of monitoring public spending, the tool also promotes greater understanding of internal operations and spending to actors within these local and national agencies. Private sector also make sure of the tool to have more and better information about previous and current tenders in order to run business analytics and business intelligence.

The team noted critical challenges throughout the development of their work. The key challenge has been the overall poor quality of contracting data. Two concrete areas of improvement that would enable better quality work would be more consistent publication of contract award notices and the use of consistent, centralized business identifiers. Improving the quality of the data in these ways would allow OpenOpps.com to dive deeper into the contracting data and undertake research on the questions they most care about, such as: How competitive is the procurement system across item types and government agencies?; How efficient is spending across categories by different buyers? For example, what factors drive international price differences for the same goods and services?; What are the emerging patterns in multinational spending? How much total money do governments across the world spend on the same good or service types?

Initial results:

Market opportunity: OpenOpps.com has made developed and is developing technical methodologies and tools to link up data and make buying patterns more transparent, such as, but not limited to, through dashboards to track item sales.

Accountability and transparency through data linking: One element of this work has been to develop unsupervised machine learning algorithms to pair up information around businesses, buyers, contracting, and expenditures. This work has resulted in private business analytics tools such as Kibana dashboards and public facing analyses.

Intended long term results:

Market opportunity: With improved data quality and a large sample size, OpenOpps.com hopes to expand its current analytical work to provide even more robust information about business competitiveness and inclusiveness. In particular, the team hopes to construct new ways to measure small and medium enterprise (SME) inclusion in the marketplace and local economic development. In addition, the team would like to run international analyses across the European Union and beyond to find trends in public procurement, analyze market opportunity and value for money across while controlling for contextual factors, and extract learnings about best practices in procurement.

Ideally, this would lead to more cross-sectoral innovation and the development of smarter, more efficient solutions to public problems.

Transparency and accountability through data linking: The current data linking work could be improved and expanded upon if data publishers routinely included the data fields necessary for linking across the phases of the procurement process in their data releases. Currently, a major challenge is lack of standardization in the indexing of government agency names. Because the UK has no legal requirement to report the name changes of legal government entities, it can be difficult and timely to identify exactly which agency is spending what. The team notes that this is similar to the issue of lack of standardized business identifiers in many countries. OpenOpps.com aims to continue working towards improving the quality of these names and identifiers to be able to match at least 80% of tenders to contracts.

Requirements			
Stakeholder	Publication	Data	Information
-Procuring entities must enter correct, complete data in real time	-Timely publication of contract extension information	Market opportunity -Buyer name of ID -Tenderer name or ID -Supplier name or ID	Accountability and transparency through data linking; -Contract extension documents
-Communication with end users about what their information and visualization needs	-Ability to link up budget, contracting, expenditure, and corporate information	-Number of tenderers -SME classification of tenderer	-Contract award notice documents
	-Standardized business and buyer names and/or identifiers	Accountability and transparency through data linking; -Contract amendment date -Contract amendment rationale -Contract amendment changes -Supplier ID -Budget amount -Contracted amount -Expenditure amount	
	-SME classifications information throughout the contracting process		

African Freedom for Information Center (AFIC) (Uganda): Gilbert Sendugwa, Head of Secretariat and Coordinator, and Sarah Faguet, Program Officer

Main use cases: Value for money; Accountability & transparency through data linking

Summary: African Freedom for Information Center's open contracting work takes on multiple streams, all of which involve promoting the proactive disclosure of public contracting information and citizen participation in the public procurement ecosystem. In both Uganda and the larger surrounding region, AFIC has worked to unite actors from all sectors to engage in public procurement in order to drive more transparency and accountability, stronger feedback loops, and better value for money.

Currently, the main work streams of AFIC involve making use of contracting data to monitor and evaluate the quality of procurement procedures and the financial and physical execution of contracts. Through these data, AFIC is able to analyze the

performance not only of the procurement ecosystem as a whole, but also the execution of singular contracts. Once these analyses are complete, AFIC shares the results of their work and provide feedback directly to procuring entities on how to improve the performance of future contracting processes. In addition to the actual data analysis, a critical piece of this feedback work is connecting with citizens and end users of the data in order to spread awareness of information and news related to public procurement. Through these interactions, AFIC informs citizens about their rights to information about how their governments spend public funds, which supports AFIC's advocacy work, with the goal of greater transparency and accountability across all levels of government. As parallel work, AFIC has been collaborating with Uganda's Public Procurement and Disposal of Public Assets Authority (PPDA) to update their procurement portal, the Government Procurement Portal (GPP) to be OCDS compliant. Having data in this standardized format will increase the usefulness of the data published, as it will allow for even less technical members of the public to engage with the information about public spending. Standardized data will also support AFIC's analysis work across the dimensions of integrity and value for money.

Initial results:

Value for money: AFIC has already found interesting trends that hint at opportunities for improvement of value for money. For example, the team has noted that the budget for similar items may, in certain cases, be determined not by real buyer needs, but by copying and pasting of information directly from product pages, such as pasting technical specifications from the Toyota website rather than explaining what functions are actually needed. The team has also noted cases in which the qualification criteria are restricted, which may result in only a single bidder able to bid. Finally, they have noted sharp price differences on the same item across different buyers; for example, the price of a toilet with the same specifications can be three times higher when contracted by a different buyer.

Transparency and accountability through data linking: AFIC takes a dual approach to promoting transparency and accountability; they combine improved disclosure with citizen monitoring. The organization has already achieved initial improvements in the quantity and quality of information published by collaborating with PPDA to learn more about the procurement system, map their GPP against the OCDS, and provide PPDA with an analysis of the system. These reports have led to the taking of concrete steps taken to respond to feedback AFIC provided to specific procuring entities and to PPDA mandating the publishing of information about procurement plans, bid notices, and awards. AFIC has also changed the way PPDA is collecting and publishing information; for the first time, for example, PPDA is capturing implementation milestones). At the same time, they are complementing this data quality work with engagement with the end users of the data who monitor the procurement processes. This engagement has allows AFIC to gain knowledge about the exact information and data types needed for citizen monitoring. AFIC feeds this knowledge about information and data types and the needed information formatting back into their conversations with PPDA to ensure that the data that are prioritized for publication are the kinds needed for eventual citizen monitoring. They have also incorporated this knowledge into their work redesigning the GPP. A signal of their initial success is that their work is gaining traction, as evidenced by the fact the team is being invited to key policy spaces such as the Procurement Policy Forum to provide feedback to ongoing discussions and the fact that DFID offered to support their key requests on amendments of the Public Procurement and Disposal of

Public Assets Act to the Ugandan Ministry of Finance, Planning and Economic Development.

Intended long term results:

Value for money: Having an efficient procurement system that generates good value for money rests on multiple elements: improved disclosure of information; more accountability; and space for citizens to engage with procurement information, monitor the quality of procurement processes, and provide feedback

Transparency and Accountability through data linking: AFIC hopes that its data analysis, advocacy, and citizen engagement work will lead to strengthened and improved disclosure. In many cases, information is input into the GPP, but not in a way which allowed for data linking across phases of the procurement process. This reduces the usability of the information by end users, as it is not possible to easily sync up information about what is planned, what is contracted, and what is spent. A key step to increasing the usability of this data will be to link procurement plans with information, which is usually not done; of the 29 contracts AFIC has received, for example, 26 are not reflected in any procurement plan. Linking up this information is a key step to supporting the use and reuse of the data by citizens, civil society organizations, and actors within government. The organization has not yet made use of the OCDS data so far, but once the GPP is OCDS compliant, AFIC plans to submit this information to Budeshi, a Nigerian civil society monitoring tool, for more streamlined monitoring.

Requirements			
Stakeholder	Publication	Data	Information
<ul style="list-style-type: none"> -Procuring entities must enter correct, complete data in real time -Spaces for cross-sectoral collaboration for real follow up, such as community feedback meetings -Spaces for sector reviews to present what has been done and what the next steps are for improving data quality, such as forums by PPDA and Public Works -Spaces for policy forums and formal engagements, such as MOUs with PPDA and local governments -Spaces for regional networking, such as E Africa Procurement Forum -Holistic strategies and campaigns that suite needs of diverse stakeholders to resolve issues of messaging, infographics, and other information visualization elements 	<ul style="list-style-type: none"> -Data format standardization -Sufficient staff and technical capacity to publish correct data in correct format -Technical capacity training for publishers of information -Clear publication strategies and information outreach campaigns 	<ul style="list-style-type: none"> Value for money: <ul style="list-style-type: none"> -Budget value -Procurement method -Procurement method rationale -Technical specifications document -Eligibility criteria -Disqualifications list -Tender item description -Tender item price -Contracted item description -Contracted item price -Contract value Accountability & transparency through data linking: <ul style="list-style-type: none"> -Planning rationale -Budget amount -Budget source -Buyer name or ID -Tender notice release date -Tender period end date -Implementation transaction dates -Implementation transaction amounts -Milestone description -Milestone due date -Milestone status 	<ul style="list-style-type: none"> Value for money: <ul style="list-style-type: none"> -Technical specifications -Qualifications documentation Accountability and transparency through data linking: <ul style="list-style-type: none"> -Procurement plan document -Implementation documents -Milestone documentation

About the Open Contracting Partnership

The Open Contracting Partnership connects governments, civil society and business to open up and transform public contracting so that it is smarter, better and fairer.

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