

Open Contracting & Procurement Analytics @ Development Gateway

Helping governments and citizens to benefit from enhanced efficiency and competitiveness, reduced corruption, and increased value for money in procurement.

The Issue

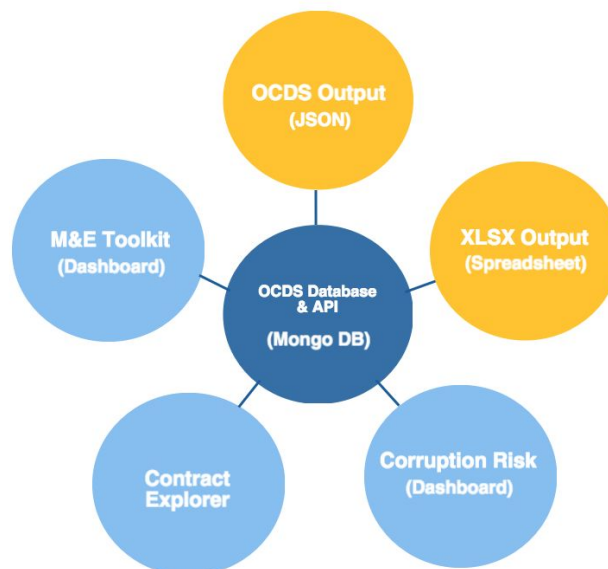
Each year, governments spend trillions of dollars through public procurement of goods and services. Much of that funding is lost through waste or corruption. **Effective harvesting and analysis of procurement data can streamline public procurement markets, reduce inefficiency and graft, and give citizens confidence that their governments are spending tax money wisely.**

Our Vision

DG provides a line of tools and services aimed at helping governments and citizens leverage public procurement data to improve service delivery. Our holistic approach addresses i) legal and regulatory frameworks, ii) technical infrastructure, iii) data management and requirements, and iv) institutional and political support in public procurement. We work with the Open Contracting Partnership, the World Bank, the Foreign & Commonwealth Office (UK) and others to help strengthen the field of open contracting and enable procurement environments that meet citizens' needs.

The Backend: Open Contracting Explorer

At the core of our vision lies the Open Contracting Explorer, an open source tool for storing, disclosing, and analyzing procurement data. We pull in data directly from government sources and convert it into the Open Contracting Data Standard (OCDS). Once converted, the data can be published in JSON or spreadsheet (CSV, XLSX, etc.) format and made available for public or internal use. It can also be visualized using DG's suite of interactive tools for data visualization and in-depth analytics.

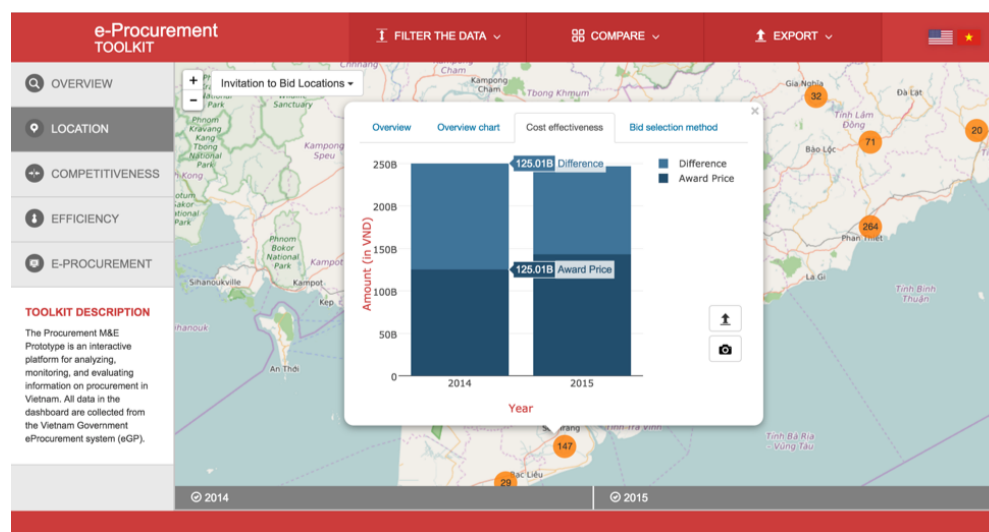


The structure of DG's Open Contracting Explorer tool suite

The Front End: Three Tools to Address Multiple User Needs

Once data is converted into OCDS, DG's Open Contracting Explorer tool enables users to analyze the data using three distinct tools: a Monitoring & Evaluation Toolkit, a Corruption Risk Dashboard, and a Contract Explorer. Because these tools contain 25 indicators and five filters that are fully OCDS compliant, they can be rapidly installed and launched. The indicators and filters can also be easily modified to meet the specific needs of the client, whether to facilitate compliance with specific regulations or to address identified shortcomings in the procurement process. Each of these tools is described below.

Monitoring & Evaluation Toolkit



DG's Monitoring & Evaluation Toolkit Deployment in Vietnam

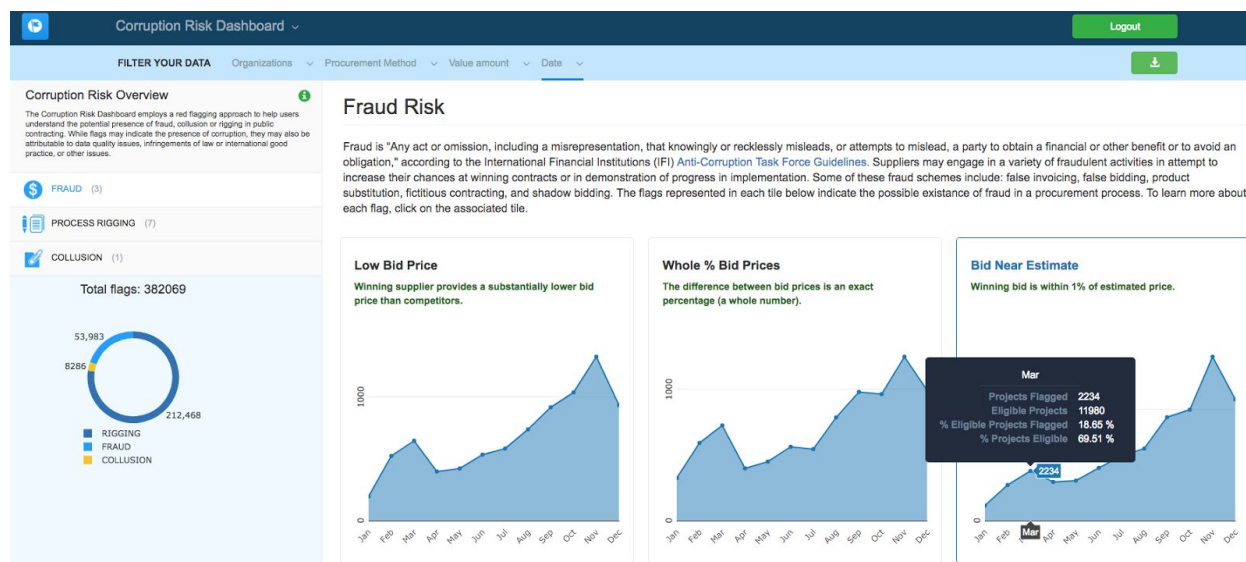
DG's Monitoring & Evaluation Dashboard¹ was designed to help procurement officials and citizens gain insight on the efficiency and competitiveness of procurement practices, and value for money attained across public procurement. This flexible tool employs a variety of interactive charts, graphs, and web GIS applications to enable users to easily explore the data. Example questions this tool can help answer include:

- Which procuring entities are receiving the highest average number of bidders per competitive bid process?
- Are some procurement methods better at achieving value for money than others?
- Which are the largest tenders and largest awards in rural areas?
- Which regions are receiving the greatest portions of procurements?
- Are procurement processes more efficient for certain procurement types?
- Are large procurements more or less efficiently carried out than smaller procurements?
- Which bid selection methods are most frequently cancelled?

¹ A demo version is available here: <http://ocdemo.developmentgateway.org/ui/index.html>.

This tool is currently available for deployment, with customizations based on data availability and quality.

Corruption Risk Dashboard



DG's Corruption Risk Dashboard tested with data from Ukraine's ProZorro system.

DG's Corruption Risk Dashboard² employs a red flagging approach to address two primary use cases:

- Identifying individual contracts that merit in-depth auditing or scrutiny;
- Aiding authorities to monitor the risk of particular types of corruption risk over time.

This tool uses high powered analytics, grounded in global research, to flag possible instances of three forms of corruption risk: fraud, collusion, and process rigging. In addition to viewing performance on individual indicators over time, users can explore the intersection of any two indicators of the same corruption risk type to gain deeper insight into the various exploitation mechanisms that may exist. Some of the questions this tool can help answer include:

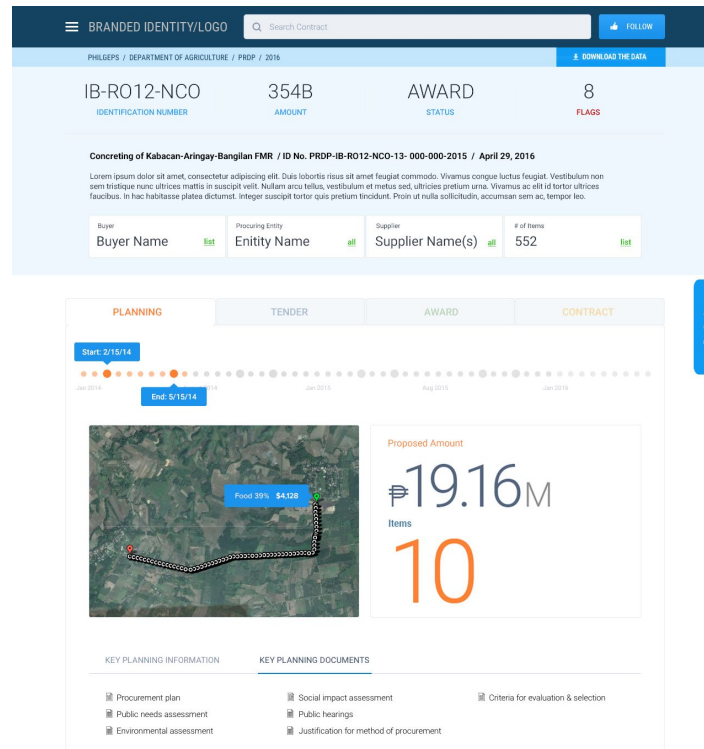
- Which form of corruption risk is most prevalent in the public procurement market?
- Are certain risk types more prevalent during specific phases of the procurement process or at particular times of year?
- How many tenders that have a short bidding period also feature just one bidder?
- Are certain suppliers winning multiple competitive contracts from certain procuring entities?
- How frequently are the same suppliers winning multiple non-competitive contracts?
- Are there instances in which one supplier wins a contract against the same group of bidders and the bid amounts feature two bids with a whole percentage difference?
- Is there a sudden decrease in the prevalence of one fraud type and an increase in another?

² A demo version is available here:

<http://ocdemo.developmentgateway.org/ui/index.html?corruption-risk-dashboard>.

This tool is currently available for deployment, with customizations based on data availability and quality.

Contract Explorer



DG's Contract Explorer (in development)

DG's Contract Explorer is a public facing tool aimed at helping citizens "follow the money." The Contract Explorer enables users to view each contracting process from program planning, through tendering, award, contract, and implementation stages. This unique search engine ensures that citizens have access to full procurement data in an easily digestible format; they can also download the data and apply their own tools. Depending on data availability, the issues this tool can help probe include:

- Which tenders and contracts have been authorized for my region of the country?
- Have any payments been made on a specific contract?
- Which supplier won the contract for a work in my district?
- How long did this procurement process take from advertisement to closeout?
- Which planning processes and studies were undertaken prior to execution of this tender?

The Contract Explorer backend is available for deployment, and the frontend can be developed with a contract.

Our Experience

Development Gateway is an international non-profit organization that empowers development professionals, governments, and citizens with the information and tools they need to improve lives. We

specialize in building technology, creating data management processes, and helping governments and others use data for maximum effect. DG brings more than a decade of experience working on open government and fiscal data management in over 30 countries worldwide, including many in Africa.

DG's open contracting and procurement analytics experience includes the following:

Implementation

- In Vietnam, DG implemented OCDS and deployed the M&E Dashboard, enabling the Public Procurement Agency (PPA) to use analytics to support its monitoring objectives.
- With support from the Open Contracting Partnership, DG has developed a Corruption Risk Dashboard that helps users identify potential collusion, rigging, and fraud in public markets.
- In Nepal, DG led an open contracting pilot implementation in partnership with the government, World Bank, and civil society.
- Through the dgMarket European Union tender platform, DG was one of the first organizations to pilot OCDS (see <http://contractawards.eu/>).
- DG is working to create an OCDS feed of U.S. award and contract data using the Treasury Department's USASpending.gov API.

Assessment

- In [West Africa](#), DG worked with the Open Contracting Partnership to conduct rigorous assessments of the technical, political, and contextual aspects of the contracting process in five countries: Ghana, Nigeria, Senegal, Liberia, and Guinea.
- In Chile, the Philippines, Tunisia, and Mongolia, DG has led in-depth technical assessments of government systems, data collection, and publication processes, as well as legal frameworks and public engagement practices.

For more information about DG's experience developing information management systems, including aid management platforms, and implementing tools using international data standards, please [visit our website](#).