Promoting E-Government Procurement (E-GP)

The Strategy and Role of the World Bank in the Europe and Central Asia (ECA) Countries

FEBRUARY 2015
1 EXECUTIVE SUMMARY

The promotion of E-government procurement (E-GP) in the countries of Europe and Central Asia (ECA) fits within the World Bank’s key goal of good governance enhancement. With a central focus on sustainable public resource management, E-GP is an appropriate response to the identified structural needs of the Bank’s clients in the region. Considering that the actual level of E-GP adoption in ECA countries is currently very uneven, the Bank’s strategic framework, though built on a common set of principles and objectives, also encourages the adoption of programs and projects tailored to address specific country needs.

The goals and objectives will be pursued through concrete programs and projects implemented by ECA countries with the support of the Bank along three strategic directions.

The first direction fosters the enhancement of national adoption plans to ensure that as many countries as possible are ready to offer their procurement communities the benefits of fully fledged E-GP systems and are able to add features, tools, and services allowing for a broader coverage of the E-GP cycle. Priorities within this direction should include (i) the enhancement of stock-taking in ECA countries in order to prepare projects on the basis of reliable and meaningful diagnostics, (ii) the reinforcement of capacity through training and the promotion of professionalization schemes for the procurement cadre, (iii) the adoption of governance filters to detect and prevent fraud and corruption, and (iv) the launch of E-GP-dedicated communications and social marketing plans to support the change management required upon the successful adoption of the new systems.

The second direction, perhaps the most innovative and demanding, builds from the relevancy of using E-GP to generalize a quantitative approach to public procurement performance. The setup of country-tailored performance measurement systems, made up of a vast array of key performance indicators that will be fed mainly by E-GP-generated data, is to be complemented by a regional component allowing for some harmonization between countries. This harmonized system of indicators—measuring both the adoption of E-GP and procurement performance itself—is seen as a requirement for benchmarking and knowledge sharing. National authorities and agencies in charge of managing public procurement should be consulted before a measurement system is adopted, and close coordination with the European Union (EU), the Organisation for Economic Co-operation and Development (OECD), the European Bank for Reconstruction and Development (EBRD), the World Trade Organization (WTO), and the United Nations Commission on International Trade Law (UNCITRAL) will make the design and development of a true common system of indicators—comprising E-GP adoption and procurement performance indicators—possible to achieve in the medium term.

Finally, the third direction brings to the agenda new possibilities for using E-GP in Bank-funded projects to both improve project management efficiency and quality and also to showcase E-GP use and practice in order to make all stakeholders more aware of and receptive to its application. The possibility of making E-GP use mandatory for Bank-funded projects in countries already able to utilize it will certainly be among the topics to be discussed and agreed with the relevant national authorities.

These envisaged directions, coupled with the concrete recommendations and the action plan outlines, will guide the Bank’s activities in promoting the adoption of E-GP in ECA countries and establishing a framework under which country-tailored programs may find consistency and alignment with a common set of principles and objectives. Although the strategic directions can provide guidance to the Bank’s approach to clients and partners, they will also have to be dynamic and evolve as the implementation unfolds, the results are measured, and the stakeholders share their feedback.
2 OBJECTIVE AND SCOPE OF STRATEGY

Based on well-established studies on institutions and growth, the World Bank Group (WBG) believes that there is “a strong and positive correlation between the principles of good governance and a country’s per capita GDP, as well as the quality of health and education services. In short, good governance is good economics.” Good governance is at the heart of the development agenda and crucial to the WBG’s goals of ending extreme poverty and boosting shared prosperity in a sustainable way. In this context, the promotion of E-GP in ECA countries fits within the key goal of good governance enhancement, which mainly focuses on:

- Sustainable public resource management, including through the procurement system
- More effective performance and delivery arrangements that boost results by strengthening core public sector agencies and harness innovations in public management, performance monitoring, and information and communications technology (ICT) solutions
- An open and accountable government that supports transparency through access to information and open data; builds social accountability through government accountability agents; implements legal and judicial reform; and empowers citizens to participate effectively in government decision making

In the specific field of public procurement, it is important to stress that “The overarching goal of achieving value for money and delivering sustainable results would be underpinned by several principles. These include economy, efficiency, effectiveness, integrity, openness and transparency, and fairness.”

The adoption of a fully fledged E-GP system is not an end in itself, but it should be regarded as one of the most effective ways of making public procurement more sustainable. In view of the past decade’s rhythm of progress on the global digital agenda, it can even be argued that E-GP is not simply one way of modernizing the public procurement system but is the way of doing so, from the legal basis to the institutional framework.

The present strategy proposal is designed to foster the role of the World Bank in pursuing the following key objectives in ECA countries:

Objective 1: Strengthen public procurement systems in ECA countries by promoting the further adoption of E-GP. The rationale behind this objective derives from the correlation between the introduction and the development of E-GP with relevant, measurable, and measured improvements. The recognizable advantages for public spending involve enhanced transparency, ease of access, competition, and economic efficiency.

Objective 2: Develop E-GP capacity and share relevant experience. Public procurement capacity will have to be tailored to fill in the structural gaps. The professionalization of the procurement system in both the public and private sides of the market is essential.

Objective 3: Build capacity in using e-procurement data to ensure good governance and to measure public procurement performance to help strengthen public procurement systems to be more strategic. Even in countries and regions that are quite actively reforming and modernizing their public procurement systems, there is, with a few exceptions, a “structural lack of quantitative approach to market information.” Building on the natural ability of E-GP to make the collection and treatment of information significantly easier, this strategy aims to promote the detection and prevention of fraud

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1 For the context of the Governance Overview, see http://www.worldbank.org/en/topic/governance/overview.
and abuse and the measurement of performance as key steps toward the more strategic management of public procurement.

Objective 4: Increase the use of E-GP in Bank-funded operations. It is important that legal, managerial, and operational arrangements are made in order to substantially increase the use of E-GP to process procurement as part of Bank-sponsored/supported projects.

3 METHODOLOGY

This strategy has been designed through several interactions between the Consultant and the Bank Coordination Team in order to guarantee the necessary alignment of the assignment’s objectives and expected output. These interactions, performed via web conferences and e-mail, supplemented areas where the required information was not sufficiently clear or did not exist.

The information gathered by the Bank provides a clear picture of the E-GP status of the 22 ECA countries. It has also been used as the starting point for capturing common regional features and country-specific realities and then grouping countries in clusters for strategic segmentation purposes.

In addition, the following documents have been desk reviewed:
- Discussion Paper on Public Procurement Performance Measures, Gian Luigi Albano/OECD (GOV/PGC/ETH 2013-1)
- Public Procurement Assessment, Review of Laws and Practice in the EBRD region, EBRD, 2011
- Brief 21 Public Procurement – Performance Measurement, Support for Improvement in Governance and Management (SIGMA), 2011
- Presentations from the 10th Public Procurement Knowledge Exchange Platform, Istanbul, Turkey, May 2014
- E-GP Implementations – A Review of Business Models and Approaches, World Bank, 2009
- Electronic Government Procurement – Roadmap, Procurement Harmonization Project of the Asian Development Bank, the Inter-American Development Bank and the World Bank, 2004
- E-GP Readiness Self-Assessment, Procurement Harmonization Project of the Asian Development Bank, the Inter-American Development Bank and the World Bank, 2004

4 OVERVIEW OF PUBLIC PROCUREMENT SYSTEMS IN ECA COUNTRIES

The Bank’s plan to address client needs by adopting a strategy to promote E-GP must take into account the significant diversity of the ECA country profiles. At the same time, there are some common features and similarities that should translate into segmentation criteria that will reduce the risk of missing the targets and misusing resources, for example, by neglecting to effectively cooperate with other players who could bring value to the Bank-sponsored reform initiatives.

The vast majority of ECA countries have already started using one or several tools that the Bank considers to be modules of broader E-GP systems, and they are already offering the respective services to their public procurement community. However, there is room for improvement before fully developed E-GP systems are made available.
The data gathered by the Bank through a survey directed at national agencies and authorities in charge of administering and overseeing the public procurement systems show a very uneven situation regarding the adoption of E-GP (see table in Annex I). This is an important factor calling for particular attention when defining the country clusters and respective strategy segmentation.

The table below shows the percentage of ECA countries that are currently offering E-GP services and the level of E-GP usage in procurement procedures conducted as a part of Bank-funded projects.

<table>
<thead>
<tr>
<th>Available E-GP Services</th>
<th>Number of Countries</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication</td>
<td>21</td>
<td>96%</td>
</tr>
<tr>
<td>e-Tendering</td>
<td>10</td>
<td>46%</td>
</tr>
<tr>
<td>e-Reverse Auctions</td>
<td>12</td>
<td>55%</td>
</tr>
<tr>
<td>e-Catalogues</td>
<td>4</td>
<td>18%</td>
</tr>
<tr>
<td>e-Quotations</td>
<td>6</td>
<td>27%</td>
</tr>
<tr>
<td>Multilanguage</td>
<td>16</td>
<td>73%</td>
</tr>
<tr>
<td>Usage in Bank Projects</td>
<td>1</td>
<td>5%</td>
</tr>
</tbody>
</table>

4.1 A segmented strategy based on country clusters

The objective of grouping the ECA countries into three clusters is to promote simplification to better devise suitable strategies and allocate resources. Two grouping criteria have been followed:
- EU membership, since ECA countries that are EU member states have to comply with a body of law that sets a mandatory E-GP adoption plan;
- The availability of e-Tendering, which is considered, for the purpose of grouping countries, a benchmark in terms of value added along the E-GP cycle. Although there are already transparency-related benefits resulting from earlier stages of E-GP adoption, such as those deriving from the publication of contract and award notices, the core benefits linked to the increase in competition and efficiency (for example, 24/7 real-time access to the “tender room” and lower submission and management costs borne by economic operators and contracting authorities) can be reached only after an e-Tendering/E-Submission module is in operation. That is the reason for linking the minimum E-GP service level concept to the availability of e-Tendering.
The above clusters resulted from the identification of the following similarities that should be confirmed in greater detail as more information becomes available:

**Cluster A: Non-EU countries with no e-Tendering services available**

The countries grouped in Cluster A share the characteristic that they have not yet reached the E-GP maturity level corresponding to the stage of e-Tendering in the public procurement procedural cycle. All but one country are already publishing contract notices on the web, although the extent to which public contracts are being published (published/total contracts) and the specific quality of information provided may differ from country to country.

Overall, these countries can be considered to be already initiated on the E-GP path, but they still need a great deal of political drive and resources to overcome the known barriers that normally hamper the transformational process involved in setting up a fully-fledged E-GP system.

Among other priority actions, these countries will need to adopt or update a National Strategy and Roadmap toward the implementation of E-GP (from the political level down to organizational and operational structures) to politically drive the process in order to overcome natural resistance to change. They will also need to combine medium- and long-term strategic objectives with quick gains that have the potential to motivate stakeholders to join the venture.

**Cluster B: Non-EU countries with e-Tendering services available**

Countries grouped in Cluster B have already achieved what can be considered, for the purpose of the present strategy, a very reasonable level of E-GP maturity. This means that they are able to offer e-tendering services to the procurement community, which has to be seen as a comparatively advanced starting point for the enhancement of their systems.

Priorities in this case will likely include the extension of E-GP coverage and functionalities throughout the stages of the procurement cycle until a complete system is attained, as well as the enhancement of system interactions and possible integration with other E-GOV systems, for example, financial management information systems (FMIS), oversight and regulators information systems, and so forth.
Cluster C: EU countries with e-Tendering services available

EU member states in the ECA region, as all other EU countries, have to comply already with a very clear body of law—the European public procurement law⁴—which stipulates the obligation to switch to an E-GP system by 2018⁵ at the latest. The existence of a binding obligation regarding the key features of the E-GP system and the deadlines for major milestones help these countries to perform their “homework” in a timely manner. The most important collective priority for these countries will be the transposition of EU Directives into their national legislation, which offers them a great opportunity to speed up the reforms and address public procurement in a more strategic fashion.

5 REQUIREMENTS FOR A SUCCESSFUL STRATEGY

5.1 Basic assumptions: definition of E-GP and E-GP adoption

For the purpose of defining the scope of the strategy and the recommended activities to be deployed, the definition proposed by the Multilateral Development Bank (MDB) E-GP Working Group is particularly useful. According to this group, E-GP consists of the use of information technology (IT, especially the Internet) by governments to conduct their procurement relationships with suppliers for the procurement of the works, goods, and consultancy services required by the public sector.

Taking into account the aim of making a fully developed E-GP system available in as many ECA countries as possible, IT should be interpreted to include all possible information and communications technologies and tools that may be used to process any task or deliver any output of a procurement procedure, from planning to contract management. In fact, all stages of the procurement cycle can today be managed and delivered electronically, so E-GP is a broad concept comprising a vast array of tools and modules, including E-registration (of contracting authorities and economic operators), E-Tendering, E-Quoting, E-Auctions and E-Reverse Auctions, E-Catalogues, Procurement MIS/Data Warehouse (DW)/Business Intelligence (BI), and so on.

In addition, there are a number of functionalities designed to deliver central purchasing activities (such as aggregation of demand, award of framework agreements, and call-off contracts), contract management (monitoring of supplier performance, payments, contract modifications), and the handling of review mechanisms and complaints that may interact with each other and add value to the whole (integrated) public procurement system.

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⁵ According to EU Directive 2014/24, full e-procurement, including e-tendering, will become mandatory by October 18, 2018 for contracting authorities at large. In case of central purchasing bodies, the deadline is April 18, 2017.
Although there are still a number of countries that are not yet ready to offer the services comprised in the “e-submission” module/step (ring 1 in the figure), the whole of the pre-award phase (ring 2 in the figure), covering all the procedural steps up to the notification of the award decision, should be considered to be the minimum E-GP service level. Thus, every country is invited to commit to achieve this service level according to a formally adopted roadmap comprised of all the project phases, the resources needed, and a timeline for implementation. The reason for this ambitious approach is that the simple publication of contract opportunities is only the first step in an extensive value-added chain that is attainable only by means of a fully advanced E-GP system.

For the purpose of delimiting the scope of the Bank’s activities related to the promotion of E-GP adoption in each of the ECA countries and of setting a consistent baseline for each project component subject to measurement and evaluation, a country can be seen to be offering a minimum E-GP service level whenever the following services/facilities/tools are being made available:
- e-Notification: online publication of tender, contract, and contract award notices
- e-Access: online access to tender documents in an automatic manner and on a 24/7 basis
- e-Submission/e-Tendering: online submission of tenders, evaluations, award preparatory steps, and award decisions

The adoption of E-GP relates to the dynamics of the change process from a pre-existing—and coexisting, for a period of time—paper-based system to an electronic one. It fundamentally measures the number and the value of public procurement contracts that have been processed electronically, at a minimum up to and including at least the e-Submission/e-Tendering stage, as a proportion of the total public procurement contracts processed in that period.

5.2 Critical success factors

The following critical success factors were considered when devising this strategy:

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6 A detailed analysis of the concrete contents of notices that are published, mainly in public contracts’ dedicated web portals, is required and should be undertaken on a country-by-country basis so that the relevancy, completeness, and utility of the information can be assessed, especially from the economic operators’ point of view. This is also the case for the coverage of the publication mechanisms in terms of the tasks, acts, and phases of the procurement process and procedures that are advertised, for example, if, in addition to the contract notices, there is also a mandatory publication of contract award notices and their minimum contents and formal requirements. Furthermore, on the technological side, it is also of utmost importance to know if the information published is contained in machine-readable files so that a subsequent data collection and analysis can be automated and “data mined” for monitoring and evaluation purposes.
5.2.1 Solutions based on reliable diagnostics

As a result of the poor development of E-GP in many countries, the information available is based mainly on general economic and financial statistical data that do not capture a number of relevant areas of the public procurement function. Furthermore, a considerable portion of available information is gathered through surveys answered by very small samples of respondents who may tend to convey their corporate views on the matter. Typically, public procurers tend to emphasize the positive aspects of the system and their management performance, while economic operators tend to take the opportunity to convey some criticism and put pressure on public decision makers.

In general, the poor development of E-GP is usually linked to a weak public procurement information system that is lacking the important data needed to strategically manage the public procurement system. Thus, instead of considering data generation and analysis to be an “add-on” naturally linked to progress toward the implementation of an E-GP system, this topic is at the core of the strategic agenda, where it has a strategic direction of its own.

5.2.2 Simple and results driven

National agencies in charge of administering the national public procurement systems and contracting entities at large (the demand side) may easily find themselves confused by a myriad of standards, best practices, roadmaps, strategies, and policy-related papers that tend to be high quality but to lack internal consistency. The same is often experienced by the other key stakeholders, ranging from economic operators (the supply side) to oversight and supervision bodies (the regulatory and monitoring functions). When seen from a national/country perspective, this apparent cacophony does not help communication and the promotion of underlying goals and objectives for the simple reason that to do so in an effective way, the message has to be short, consistent, and easy to memorize; in other words, there may be several voices, but a single core message is highly needed.

Important here is the coordination between MDBs, which very often use different methodologies for gathering and treating the same information and data, brand the same phenomena after their own preferred approaches and styles, and use different wording to describe the same actions.

5.2.3 Country-tailored programs coupled with regional harmonization and cooperation

This strategy is designed to be deployed and to materialize through a number of projects at both the national and regional levels. Keeping in mind that ECA countries do not form a homogeneous political entity, the term “regional level” is used from a World Bank perspective, which involves the identification of common features in the country profiles and the shared drivers and barriers. In addition, this perspective requires an assessment of the optimal allocation of the resources needed to provide technical assistance to the clients.

The “fit-for-purpose” approach calls for a consideration of the national level as the primary focus for the strategy deployment. Thus, the Action Plan Outline gives priority to the country programs based on country-specific assessments rather than a regional program. In fact, the very existence of different national legal provisions and institutional frameworks requires special attention to the national components of the strategy.

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7 In fact, a detailed analysis of these standards, guidelines, and even legal instruments may easily lead to the conclusion that they are not as divergent as they might seem at first glance. Beyond the different drafting techniques and peculiar angles that some institutions want to stress more than others, there is broad agreement on the core principles of good governance of a public procurement system.
The regional level can offer some interesting opportunities for promotional activities, benchmarking, and capacity building, but it is at the national level that the transformational programs will have to be implemented and that tangible and measurable results will have to be delivered.

If built in close coordination with other partners and stakeholders, a regional component will allow for some harmonization between countries as they pursue their national E-GP adoption plans. The achievement will be measured through a harmonized system of indicators that will provide a context for benchmarking and knowledge sharing. Finally, an increasing level of (soft) harmonization will also contribute to the promotion of international trade across countries, boosting their economies. From an economic efficiency perspective, there are activities that will benefit if developed and implemented on an aggregated scale, that is, on a regional level that does not have to include all ECA countries.

In this line, the following could be delivered at the regional level for those ECA countries seeking to benefit from external support:

- Training, accreditation, and professionalization schemes
- Awareness raising, promotion, and communications (a social marketing plan designed to address the attitudinal landscape in relation to public procurement in general and E-GP in particular)
- A performance measurement system (PMS), involving a comparison of common E-GP adoption and performance indicators on a harmonized basis

6 WORLD BANK STRATEGY

The above-mentioned diversity in E-GP adoption calls for a strategy that focuses primarily on country-tailored programs to ensure that the specific client needs can be accurately identified and the proposed solutions are suitable and feasible. Subject to a detailed country-by-country analysis and validation process, together with the national authorities concerned, this strategy will pursue objectives along the three key directions of activity outlined above that could be the focus of a partnership between the country, the Bank, and other MDBs wherever it might be appropriate to forge program/projects based on partnerships and coalitions:

- First direction: enhancement of national adoption plans
- Second direction: quantitative approach
- Third direction: use of E-GP in Bank-funded projects
6.1 Enhancement of national adoption plans

FIRST DIRECTION: Promote E-GP in each ECA country by supporting the launch or enhancement of national adoption plans. The following key actions and projects could be developed:

**Countries grouped in CLUSTER A**

- Completion or update of an E-GP Readiness Assessment with national authorities
- Adoption or update of a comprehensive roadmap toward the implementation of an E-GP system
- Technical assistance and funding for E-GP systems in interested countries (should include the most important modules enabling procurement planning tasks, the registration of contracting authorities and economic operators, and the processing of the pre- and award phases, e.g., e-Tendering, e-Quoting, e-Auctions, e-Reverse Auctions, and contract management)
- Adoption of governance filters in E-GP systems to detect and prevent fraud, waste, and abuse in public procurement
- Integrated social marketing plan to support a course toward E-GP adoption (attitudinal factors that may be the most difficult barriers to overcome)
- Capacity reinforcement through training and the promotion of professionalization schemes for the procurement cadre

**Countries grouped in CLUSTER B**

Program designed to help accelerate preparations for next steps through the E-GP value chain:
- Evaluate the current status (baseline) and identify major barriers that are making the progress to next steps more difficult (measurable targets should be defined).
- Provide technical assistance and funding for additional E-GP modules for countries interested in expanding the array of E-GP services available, including the implementation of a procurement MIS (DW and BI).
- Adopt governance filters in E-GP systems to detect and prevent fraud, waste, and abuse in public procurement.
- Promote the enhancement of E-GP service quality (respond to client needs and stakeholder aspirations).
- Develop an integrated communications plan to support the continuation of E-GP implementation.
- Map the interactions between E-GP and other E-GOV systems (e.g., FMIS) and launch a Phased Integration Plan.
- Reinforce capacity through training and the promotion of professionalization schemes for the procurement cadre.

**Countries grouped in CLUSTER C**

Program designed to fill detected gaps (e.g., capacity building, professionalization of procurement cadre) and accelerate the implementation of the EU E-GP roadmap, mostly focusing on:
- Technical assistance and funding (or Reimbursable Advisory Services [RAS]) for additional E-GP modules, including procurement MIS, for countries interested in expanding the array of E-GP services available (e.g., to comply with EU Directive 2014/24, requiring full E-GP for central purchasing bodies [CPBs] by 2017 and others by 2018)
- Adoption of governance filters in E-GP systems to detect and prevent fraud, waste, and abuse in public procurement
- Mapping of the interactions between E-GP and other E-GOV systems (e.g., FMIS) and launch of a Phased Integration Plan
Reinforcement of capacity through training and the promotion of professionalization schemes for the procurement cadre

6.1.1 Promoting the use of governance filters in E-GP systems

Governance filters are algorithms that can be used to detect or prevent fraud, waste, and abuse in electronic procurement systems. They are based largely on proven forensic accounting tests that have been used for decades to identify fraud indicators in procurement, invoicing, and payment data. The tests are particularly effective in E-GP systems because of the easy and real-time access to the relevant data that such systems collect and store, without the time-consuming burden often faced by forensic accountants of converting huge volumes of paper records into electronic files.

Among other applications, governance filters can:

- Create proactive alerts of potentially fraudulent transactions for procurement and oversight personnel, including alerts of potential collusion and bid rigging at the bid submission stage
- Automatically block transactions that do not comply with procurement rules or regulations
- Use collected historical procurement data to generate norms and benchmarks that can be used to create new, tailored, and more refined tests
- Create a detailed, comprehensive audit trail for auditors
- Create a useful evidentiary record for investigators

The filters can be tailored to the particular governance risks and schemes encountered in various procurement environments. The initial procurement tests can be followed by quick and simple pre-programmed online background checks on the suspect parties identified in the initial tests. Such checks have often proved to be as effective as the procurement data tests in identifying potential fraud.

As confirmed by software engineers involved in the design of e-catalog and e-procurement systems, the recommended governance filters can be installed without significant programming difficulties or additional expense. Virtually all of the data required to conduct the primary tests are already collected and stored by such systems or could easily be added. Additional data, such as black lists, corporate registration data, and address matches, could be acquired and merged without undue effort.

Common fraud schemes that governance filters can help detect or prevent include, among many others:

- Collusive bidding (agreements by contractors to divide work and inflate prices)
- Bid rigging (schemes by a corrupt procurement official and a favored bidder to rig the bid selection process in the bidder’s favor, usually the result of corruption)
- The presence of shell companies or unnecessary brokers in the procurement process, which are often used to hide the illicit financial interests of procurement or government officials
- Fictitious vendors, used by insiders to embezzle funds
- Purchases for personal use or resale by procurement personnel, which can reach significant proportions
- Delivery of substandard goods, works, and services

The recommended tests can be conducted through access to standard information kept in E-GP systems. Annex II categorizes some indicators of the above schemes as well as additional fraud/waste/abuse tactics that can be detected by governance filters, relevant data requirements, and other useful information.
6.2 Quantitative approach

SECOND DIRECTION: Promote the benefits of a quantitative approach to performance measurement through the development of PMS(s).

All countries (all clusters)

- Launch national public procurement measurement systems and a regional performance measurement system.

Most recent experience has shown that the quantitative approach to reform of public procurement systems is often neglected. It is also recognized that collecting data from paper-based systems is cumbersome, and the data are very often unreliable or not readily available. The implementation of a procurement MIS module (DW and BI) as part of an E-GP system would provide the data analytics needed to facilitate a quantitative approach.

The current strategy emphasizes the quantitative measurement of the E-GP adoption and performance efforts of national public procurement systems. This permanent quantitative measurement will:
- Guarantee quality inputs to the monitoring function
- Enhance the comprehensiveness and relevance of information
- Make longer data series available and broaden the scope of analysis
- Promote the making of an independent analysis and recommendations with a view to enriching the strategic decision-making process

The advantage is that the more one spreads the electronic features and tools along the procurement life cycle, the easier it will be for more data and information to be collected and processed.

6.2.1 From policy goals to E-GP adoption and performance indicators

The first task is to define the desired policy goals to measure in a quantitative, reliable, and comparable manner. The enhancement in the way systems are evaluated will allow countries to review their own strategic plans. Over time, with a richer data set and a more accurate picture of the situation, it will be easier to achieve organizational goals.

Overall, the strategy proposal advocates the coexistence of both common indicators. This refers to E-GP adoption and performance indicators that are used in every ECA country with the same formulation
and calculation method, metrics, and algorithms, which can then be complemented by country-specific indicators to answer any question regarding a particular system feature or to provide decision makers with information for analysis.

During the transition period to an integral E-GP system able to generate all public contracts (goods, services, works, and concessions), the interim coexistence of two different systems raises several difficulties related to the different nature, format, and shape of data generated by a paper-based system and an emerging E-GP system. This should be considered when designing and planning the country-level activities, namely, by carefully mapping all data-generating operations that are currently feeding the overall statistical information on national public procurement.

Even for countries grouped in Cluster A, any available data collected from contract and contract award notices should be analyzed and, if machine-readable, also used to measure public procurement performance.

6.2.2 Common regional and country-specific E-GP adoption and performance indicators

Five steps toward the measurement of E-GP adoption

1. A Country Readiness Assessment should be conducted (or an existing study updated and reviewed) in light of this strategy to ensure that any missing data can be obtained from the national authorities. In many cases, where projects and activities are already ongoing, this task may be relatively easy to perform but nevertheless unavoidable in order to reduce the risk of embarking on overlapping activities or leaving gaps needing to be filled.

2. National governments, together with their entities in charge of setting public procurement policy, should define the country policy goals regarding the adoption of an E-GP system. In this definition (policy document or statement), the key goals that will later inform the national roadmap will also tackle the top-level political issues at stake, for example, the major legal-, institutional-, and governance-related reforms needed as a prerequisite for the adoption of the system, the mandatory versus voluntary adoption of E-GP, the “big–bang” approach versus the transitional period, and the business model involved.

3. A formal agreement should be reached that outlines a data collection and treatment/analysis protocol providing for the formulation of E-GP adoption indicators, metrics, logarithms and
calculation, collection and treatment methodologies, interaction with non-E-GP-generated data, and so forth.

4. A baseline should be set regarding each measurement area and indicator and an agreement reached on the quantitative objectives to meet (target).

5. The E-GP adoption process should be measured through the application of the indicators against the baseline, at which point the PMS should be up and running.

Measurement of public procurement system: key performance indicators

The World Bank Global Indicators Group\(^8\) has been focusing its attention on public procurement, but only from a private sector perspective and it has not addressed E-GP as of yet. Nevertheless, the following four thematic areas\(^9\) already identified as key fields to measure should be taken into consideration when developing the country-specific public procurement performance indicators:

- Accessibility of public procurement regulations (legal indicators)
- Bidding for a public tender (time and motion indicators)
- Filing a complaint (time and motion indicators)
- Accountability and oversight mechanisms (legal indicators)

In addition, to cover E-GP adoption–related topics, there are some performance areas that will certainly benefit from a broader consultation with partners and standards-setters as well as national stakeholders. The whole system should cover the following three levels:\(^10\)

- The national (meta) level, at which the overall performance of the national public procurement system is measured and evaluated
- The contracting authority (macro) level, at which the performance of the contracting authorities’ operations is measured and evaluated
- The contract management (micro) level, at which the focus is on the actual, verified delivery of individual public contracts

An indicative set of indicators is included\(^11\) in Annexes III-A (Overview) and III-B (Algorithms) aiming to measure public procurement system performance, taking into account the proposed three directions of the present strategy proposal as well as the policy goals that are more likely to be included in a minimum approach to performance measurement. Procurement performance indicators are still being discussed by the different stakeholders. A set of indicators to be measured must be agreed on at the country-specific level.

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\(^10\) The meta-, macro-, and micro-level concepts were introduced by The Contact Committee of the Supreme Audit Institutions of the European Union in the Public Procurement Audit booklet (2010).

The set of indicators that will form the basis of the measurement system then needs to be implemented, taking into consideration the policy goals stated by each relevant entity as well as the related level of accomplishment. The participation of as many stakeholders as possible since the inception of the system is key in order to collect their views and understand their interests. Participation and ownership will ensure that the whole system is perceived as trustworthy and as an added value working tool for all stakeholders within the procurement community.

6.2.3 The launch of ECA national public procurement performance measurement systems (PMS)

The systems at the national level should consist of a set of indicators, together with their rationale and logarithms. The system should be comprehensive in the sense that the most relevant policy areas and goals are covered (asked and answered through the application of indicators). Additionally, the collection of data mechanisms and arrangements, the data treatment techniques and tools, and the overall interactions with other existing national systems should be harmonized with other stakeholders. In connection with a consultation process at the international, regional, and national levels, the input should be provided by stakeholders, including academia and the e-commerce industry.
The adoption of a coherent, tested, and generalized set of E-GP adoption indicators and, on a broader scale, public procurement performance indicators, at the national level is the first building block on the path to launching a broader, regional, public procurement PMS. The national systems would aim to:

- Collect and analyze public procurement–related data generated in the concerned country
- Monitor the procurement policies (a combination of guiding principles and policy goals) and measure the actual level of implementation
- Disseminate the best practices

It is important to note that such systems can reach a minimum level of reliability and be sustainable only if the following requirements are met:

- An increasing portion of raw data is being generated and collected from E-GP platforms.
- There is full collaboration with statistical services and regulatory bodies that hold information and data generated through electronic or paper-based processes.
- Interest in the analysis is demonstrated by the procurement community for use as a tool for both supply and demand side entities.
- There is an increased quality in the monitoring reports that are produced by auditors and regulatory bodies.

As far as free and public access to information and data is concerned, an open contracting–oriented rollout to be inserted within the entire setup project should be considered. The inclusion of open contracting principles within the public procurement PMS and the adoption of a common data standard, such as the “Open Contracting Data Standard” (OCDS), through which information providers are able to share structured, re-usable, and standardized data, will promote disclosure and participation in the public contracts domain. A list of key documents and the publication levels as described in the OCDS are included in Annexes IV-A and IV-B.

Even before taking into account other specific considerations that may be tabled by partners and stakeholders, three phases are evident before the systems go public:

- First phase: installation, accessible only to governments and project partners
- Second phase: consolidation, accessible only on a country basis, meaning that no comparison or benchmarking tools would be available; access granted to the public
- Third phase: maturity, both country-based and regional benchmarking–related tools and features are available; access granted to the public

6.2.4 The launch of an ECA regional PMS

Since the current proposal provides for an initial harmonization of the national performance measurement systems, the setup of a regional PMS seems to be feasible, and its added value would grow as countries implement and fine-tune their own national systems.

A wide room for maneuver in terms of institutional and organizational shaping is provided for further discussion with countries and partners at a later stage. Possible solutions range from a minimal configuration based on a database designed and able to receive and treat data fed by national systems

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12 The World Bank has supported the setup of this kind of “facility.” Among others, several cases in India could be mentioned: Public Procurement Observatory for the State of Uttar Pradesh (http://v1.procurementobservatoryup.com), Public Procurement Observatory for the State of Chhattisgarh (http://pocg.in/index.php), and Public Procurement Observatory for the State of Assam (http://www.procurementobservatoryassam.in).

13 OCDS is a core product of the Open Contracting Partnership (http://www.open-contracting.org) that emerged as a result of the long-standing collaboration between the World Bank Institute (WBI) and the German Corporation for International Cooperation (GIZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). This collaboration builds on the work WBI has been doing with open contracting coalitions from diverse sectors in more than 21 countries, from Mongolia to Ghana. Version 1.0 of the Standard is ready for use by governments and other publishers.
to a more institutionalized setup, for example, comprising management and advisory teams or committees (with representatives from countries, MDBs, and other partners) and a dedicated external communications platform enabling access to information, data, reports, and so forth.

6.3 **Use of E-GP in Bank-funded projects**

**THIRD DIRECTION:** Increase the use of E-GP in Bank-funded procurements.

6.3.1 **One-off arrangements for conducting Bank-financed procurements electronically**

**Countries grouped in CLUSTER A**

- Study the feasibility of using off-the-shelf e-submission and e-tendering platforms to showcase (real-life simulation) the use of E-GP in Bank-funded procurements/projects.

In the countries of Cluster A, which have not yet reached a minimum E-GP service level, the possibility should be assessed of technically and financially supporting the implementing agencies to procure a stand-alone, one-off E-GP solution/service—or to use one made available by the Bank—to run a specific Bank-financed procurement system where the national legal system would allow it. This piloted approach would require a very careful risk analysis, but the envisaged benefits for the concrete projects concerned and the possible gains in terms of capacity building and showcasing could be decisive in promoting a faster overall adoption of a national procurement system.

Considering the need for customization even when using commercially off-the-shelf solutions, this form of support would ideally be applied to substantial projects in terms of the total estimated spending and/or to projects in which the most common procurement risks are more likely to materialize (as an additional safeguard).

In addition to the support for procuring the E-GP services described above, the procurement team, led by the national implementation agency, could benefit, if necessary, from the support of external, experienced E-GP experts made available within the framework of the Bank’s technical assistance programs.

6.3.2 **Use of E-GP as an agreed conditionality (between the Borrower and Bank)**

**Countries grouped in CLUSTERS B and C**

- Increase the use of E-GP in Bank-funded procurements/projects (stand-alone projects as well as showcasing if the legal system allows, which will be determined through an assessment).
- Explore the possibility of making the use of E-GP mandatory for procurements financed by the Bank.

Although Bank-financed procurement represents only a small share of the public procurement conducted in each of the ECA countries, there are a number of good reasons to make use of the opportunities presented by projects financed by the Bank to promote the adoption of E-GP. Among those, the following can be highlighted:

- the importance for the Bank to guarantee, to the extent possible, the sound management of the procurement of goods, services, and works as part of the implementation of its funded projects, in order to achieve the best value for money and the highest level of competition and transparency.
- the easier piloting of E-GP modules and/or systems within a project management environment (E-GP tools and services made available for managing a project) relative to the operational setting offered by an existing country procurement system
- the awareness raising and motivational effects deriving from the showcasing of electronic procurements run within Bank-financed projects

Reference to E-GP in the Country Partnership Frameworks (CPF), the Loan Agreements (as an agreed conditionality), and the Project Procurement Plans could be developed in order to ensure that E-GP is negotiated and agreed upon with the country concerned. Given the high-level political nature of the CPF, only the top-level goals and objectives of key national commitments on the adoption of E-GP should be included. If E-GP-related issues are covered by the CPF, it will be easier to detail all the remaining relevant terms and conditions related to the use of E-GP systems and tools that are needed to form and manage the contracts (goods, services, and works) as part of the funded projects.

7 RECOMMENDATIONS AND ACTION PLAN

7.1 General recommendations

- Overall, the Bank should face the challenges raised by the adoption of E-GP in ECA countries in a proactive way. In place of the standard approach to rendering technical assistance, a different policy and strategy mix will have to be deployed if the Bank is going to have a stronger and wider reach. This perspective calls for being less adverse to risk and for making use of different hands-on approaches. This involves, for example, making the tools and services available that will be necessary to help Clients to progress along the value chain of E-GP, whether by providing them in kind for further customization or by financing investment in infrastructure, equipment, and services. Finally, it will be necessary to make use of funded projects to (i) showcase the benefits of E-GP and (ii) enhance capacity on the Client side.
- Once this strategy is consolidated and a detailed Action Plan is drafted, assess the economic and financial impact of the strategy’s implementation and prepare a financial envelope for funding the envisaged activities on a project basis, in order to leverage other activities that already contribute to the same goals on an operations level.
- Implement a wide-ranging dissemination plan to inform stakeholders about the strategy and its implementation at the national and regional levels.
- Continue the permanent identification and sharing of best practices in the area of E-GP.
- Make the Bank’s own E-GP system more known (this could be a benchmark).
- Make sure that effective cooperation with the EU, OECD, EBRD, WTO, and UNCITRAL, as well as with other relevant stakeholders and standard setters, is channeled to make country-based and results-driven projects feasible.
- Guarantee the allocation of a full-time, dedicated ECA region World Bank Public Procurement Coordination Team in order to perform a strategy and policy review on a permanent basis. This team should also be able to respond through a project management office (PMO) to supplement the country-based staff allocated to the Bank’s country offices and to work closely with the Client.
- Where feasibility and risk assessments do not raise unavoidable obstacles, make available an E-GP platform and all the necessary modules to run a fully fledged E-GP system, perhaps based on open-source software, to countries that are without the available financial and technical resources and are interested in reducing the time to market.

7.2 First Direction: specific recommendations

- Continue to pay utmost attention to stock-taking in ECA countries so that the status may inform reliable and meaningful diagnostics. This is particularly important for the countries of Cluster A, since the existing E-GP services level still does not allow for large batches of procurement transaction data and information to be shared in an easily workable manner.
- Reinforce capacity through training and the promotion of professionalization schemes for the procurement cadre. Among other tested and tried formulas, the Bank could assess the feasibility of launching a regional E-GP Virtual Lab as a remotely delivered training method based on real-time simulation in cooperation with e-commerce trade associations and operators.
- Develop and implement E-GP-dedicated communications and social marketing plans aimed at supporting the change management that will be required when E-GP plans have been successfully adopted.
- Promote the adoption of governance filters in E-GP systems to detect and prevent fraud, waste, and abuse in public procurement.

7.3 Second Direction: specific recommendations

- Give the highest priority to coordinating efforts and join forces with the EU, OECD, EBRD, WTO, and UNCITRAL with the aim of designing and developing a common system of performance indicators (E-GP adoption and performance indicators).
- In addition, national authorities and agencies in charge of managing public procurement should be consulted on a country basis before a measurement system can be proposed for adoption and implementation.
- This measurement system should be simple, as automated as possible (the reason the strategy links the measurement system so closely with E-GP adoption), reliable, and relevant (if coupled, as suggested, with analytical features, such as independent reports, opinions, outlook on trends, and so on).

7.4 Third Direction: specific recommendations

- Assess the viability of making the use of E-GP mandatory for procurement within Bank-funded projects in countries of Clusters B and C, subject to a positive prior country-specific risk-assessment report produced, reviewed, and agreed with the national authorities concerned.
- Launch pilot E-GP procedures for procurement within a sample of (large) Bank-funded projects in selected countries from Cluster A and showcase the experience widely.
## ANNEXES

### ANNEX I: E-GP SYSTEMS OFFICIALLY USED IN ECA COUNTRIES

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>TRANSACTIONS</th>
<th>MULTI LANG</th>
<th>USAGE IN WB PROJECTS</th>
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<tbody>
<tr>
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<td>PUBL.</td>
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<tr>
<td>ALBANIA</td>
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<td>ARMENIA</td>
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<td>AZERBAIJAN</td>
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<td>BELARUS</td>
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<td>BOSNIA</td>
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<td>CROATIA</td>
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<td>GEORGIA</td>
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<td>KAZAKHSTAN</td>
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<td>KOSOVO</td>
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<td>KRYGYZ REP.</td>
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<td>MACEDONIA</td>
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<td>MOLDOVA</td>
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<td>MONTENEGRO</td>
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<td>POLAND</td>
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<td>ROMANIA</td>
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<td>RUSSIA</td>
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<td>SERBIA</td>
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<td>TAJIKISTAN</td>
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<td>TURKEY</td>
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<tr>
<td>UKRAINE</td>
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<tr>
<td>UZBEKISTAN</td>
<td>●</td>
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</tbody>
</table>

● Available  ○ Not Available
e - T (e-tendering); e - RA (e-Reverse Auctions); e - C (e-Catalogues); e - Q (e-Quotations)
ANNEX II: GOVERNANCE FILTERS

1. Categories of Indicators of Common Procurement Fraud Schemes
   - **Collusive Bidding**
     Secret agreements by bidders or suppliers to divide work and artificially inflate prices
   - **Bid Rigging**
     Improper manipulation of the bidding or vendor selection process to favor certain suppliers and exclude others
   - **Shell Companies Owned by Government Officials**
     Such companies are quite common and usually result in the delivery of substandard goods and services at inflated prices
   - **Fictitious Vendors**
     Fictitious companies set up by procurement or accounts payable personnel that purportedly provide goods, works, or services that are difficult to verify
   - **Purchases for Personal Use or Resale**
     Purchases for personal use, e.g., computers, automotive supplies, or miscoded consumer items, can be quite costly; purchases for resale even more so
   - **Delivery of Substandard Quality Goods, Works, or Services**
     Knowingly providing goods or services that do not comply with contract specifications

2. Additional Fraud, Waste, and Abuse Schemes that Governance Filters can Help Detect or Prevent
   - Change order abuse
   - Co-mingled contracts
   - Duplicate payments
   - Exclusion of qualified bidders
   - Failure to meet contract specifications
   - False or inflated invoices
   - Front loading of contract expenses
   - Improper sole-source awards
   - Leaking of bid data
   - Manipulation of bids
   - Overpayments
   - Rigged specifications
   - Split purchases
   - Unbalanced bidding
   - Unnecessary and excessive purchasing
   - Product substitution
3. Categories of Data Requirements

- Vendor registration information
- Bidding data
- Contract and purchase order data
- Invoice and billing data
- Payment records
- Receiving records
- Inventory and usage records
- Returns/credits

4. Other Useful Information

- Owner’s estimated cost
- Confidential reserve prices
- Procurement thresholds (sole source limits, etc.)
- Approved vendors list
- Number of companies that purchased bid packages
- Bid and contract signature information
- Approving officials
- Procurement agency employee address and contact information
- Business directory listings
ANNEX III-A: OVERVIEW OF PUBLIC PROCUREMENT KEY PERFORMANCE INDICATORS
(Indicative List)
<table>
<thead>
<tr>
<th>STRATEGY DIRECTION</th>
<th>POLICY AREA</th>
<th>POLICY GOAL</th>
<th>SYNTHETIC INDICATORS (country-wise)</th>
<th>BASIC INDICATORS (from platforms level)</th>
<th>SOURCE</th>
</tr>
</thead>
</table>
| ADOPTION of E-GP    | e-GOV       | Value of contracts formed through E-GP (% of total public procurement) | Number of contracts awarded through e-submission  
Number of goods, services, and works contracts awarded through e-submission  
Value of contracts awarded by a central purchasing body (CPB) or through a centralized purchasing arrangement | E-GP service provider (platform) + National statistics |
|                     |             | Volume of contracts formed through E-GP (% of total number of contracts) | Number of contracts awarded through e-submission  
Number of goods, services, and works contracts awarded through e-submission  
Number of contracts awarded through a centralized versus decentralized way  
Number of contracts awarded by a CPB or through a centralized purchasing arrangement | E-GP service provider (platform) + National statistics |
|                     |             | Value and volume of contracts with SMEs as contracting parties – awardees (% of total public procurement) | Number and value of contracts awarded to large companies  
Number and value of contracts awarded to SMEs  
Number and value of contracts awarded to large foreign companies  
Number and value of contracts awarded to foreign SMEs  
Number and value of framework agreements awarded to SMEs | E-GP service provider (platform) + National statistics |
<table>
<thead>
<tr>
<th>STRATEGY DIRECTION</th>
<th>POLICY AREA</th>
<th>POLICY GOAL</th>
<th>SYNTHETIC INDICATORS (COUNTRY BASED)</th>
<th>BASIC INDICATORS (from platforms level)</th>
<th>SOURCE</th>
</tr>
</thead>
</table>
| MEASURING PUBLIC PROCUREMENT SYSTEM PERFORMANCE TO MAKE IT MORE SUSTAINABLE | ECONOMIC Sustainable Public Procurement (SPP) | Improve public finance management *(be effective)* | Price reduction/price variation savings indicator | • Average price reduction indicator  
• Comparison with non E-GP-awarded prices (a sample for showcasing)  
• Average % of savings in open procedures  
• Average % of savings in e-auctions  
• Average % of savings in framework agreements  
• Average % of reduction in price at call-off stage  
• % of contracts awarded on the basis of lowest price  
• % of contracts awarded on the basis of most economically advantageous tender | E-GP service provider (platform) |
|                      |             | Improve efficiency of procurement processes *(be smart)* | Efficiency improvement indicator for contracting authorities | • Average length of pre-award stage (from contract notice to contract award notice)  
• Average length of central purchasing procedures  
• Full-time equivalent (FTEs) per type of procedure  
• Administrative cost per type of procedure | (platform) |
|                      |             | Efficiency improvement indicator for economic operators | Efficiency improvement indicator for economic operators | • Average length of bid preparations  
• Average cost per procedure  
• Type of electronic authentication required  
• Total cost for participating in public procurement procedures (by type of contract) | survey  
(platform) |
<table>
<thead>
<tr>
<th></th>
<th>Competition</th>
<th>ENVIRONMENTAL (SPP)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average number of bidders per type of contract (goods, services, works)</strong></td>
<td></td>
<td>Improve environmentally responsible procurement <em>(be strategic)</em></td>
</tr>
<tr>
<td><strong>% of direct awards versus total number and value of public contracts</strong></td>
<td></td>
<td>% of environmentally responsible contracts (% of total public procurement)</td>
</tr>
<tr>
<td><strong>% of contracts awarded to SMEs in number and value</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% of contracts divided into lots in number and value</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>% of contracts divided into geographical lots</strong></td>
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<td></td>
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<tr>
<td><strong>% of contracts divided into quantitative lots</strong></td>
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<td></td>
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<tr>
<td><strong>% of contracts divided into geographical lots</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>% of contracts divided into quantitative lots</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% of subcontracts in number and value per type of contract</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>% of contracts awarded to consortia (grouping), number and value</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average ratio between required economic and financial capacity (e.g., annual turnover, net income, etc.) and estimated contract value</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>% of abnormally low tenders</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Value and number of contracts whose formation procedure has included environment-related features or characteristics as technical specifications (not subject to competition/evaluation)</strong></td>
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<tr>
<td><strong>Value and number of contracts whose formation procedure has included environment-related selection or award criteria</strong></td>
<td></td>
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<tr>
<td><strong>Value and number of contracts awarded following a procedure containing life cycle costing award criteria</strong></td>
<td></td>
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<tr>
<td><strong>E-GP service provider (platform) + National statistics</strong></td>
<td></td>
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</tbody>
</table>
| **SOCIAL (SPP)** | Improve socially responsible procurement (*be strategic*) | % of socially responsible contracts (% of total public procurement) | • Value and number of contracts whose formation procedure has included social-related features or characteristics as technical specifications (not subject to competition/evaluation – “must have”)
• Value and number of contracts whose formation procedure has included social-related selection or award criteria – “to be evaluated/scored” | E-GP service provider (platform) + National statistics |
| **GOVERNANCE** (Protection of public procurement good governance principles) | Fair and Equal Treatment (*be fair*) | Litigation indicator | • % of contracts subject to non-judicial review
• % of contracts subject to court appeals
• Number of appeals per year
• Average value of contracts giving rise to dispute
• Average length of review procedures
• Average length of appeal procedures
• Contracting authority (CA)/Economic operator (EO) winning rate (% of total) review
• CA/EO winning rate (% of total) court appeals | E-GP service provider (platform) + National statistics |
| Foster transparency (*be open*) | Monitoring and auditing | • Value and number of ex-ante (before awarding decision) controlling procedures (% of total)
• Value and number of compliance audits | E-GP service provider (platform) + National statistics |
<table>
<thead>
<tr>
<th>STAKEHOLDERS BAROMETER (Attitudinal indicators on reforms) (be involved)</th>
<th>Transparency indicator</th>
<th>Ease of access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudinal indicator demand side (CAs)</td>
<td>▪ Average length of audits (months)</td>
<td>▪ Number and value of tenders published on the web (% of total procurement)</td>
</tr>
<tr>
<td>▪ Public access to all tender stages information</td>
<td>▪ Public access to all tender stages information</td>
<td>▫ Quality of information per type of contract and stage of procedure provided and accessible to EOs and CAs (rank 1 to 5)</td>
</tr>
<tr>
<td>▪ Quality of information per type of contract and stage of procedure provided and accessible to EOs and CAs (rank 1 to 5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudinal indicator supply side (EOs)</td>
<td>▪ Five mostly perceived benefits from E-GP</td>
<td>▪ Five mostly perceived barriers to adopting E-GP</td>
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<tr>
<td>STRATEGY DIRECTION</td>
<td>POLICY AREA</td>
<td>POLICY GOAL</td>
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<td>------------------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>INCREASE USE OF E-GP IN BANK-FUNDED PROJECTS [Third Direction]</td>
<td>ECONOMIC</td>
<td>Increase use of E-GP in Bank-funded projects by implementing agencies</td>
</tr>
</tbody>
</table>
ANNEX III-B: OVERVIEW OF PUBLIC PROCUREMENT KEY PERFORMANCE ALGORITHMS
(Indicative List)
<table>
<thead>
<tr>
<th>SYNTHETIC INDICATORS (country-wise)</th>
<th>ALGORITHMS</th>
<th>BASIC INDICATORS (from platforms level)</th>
<th>ALGORITHMS</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Value of contracts awarded through e-submission</td>
<td>$\frac{\text{Value of } e\text{-submitted contracts}}{\text{Total value of contracts}} \times 100$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value of goods, services, and works contracts awarded through e-submission</td>
<td>$\frac{\text{Value of } e\text{-submitted goods contracts}}{\text{Total value of goods contracts}} \times 100$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Value of contracts awarded by a CPB or through a centralized purchasing arrangement</td>
<td>$\frac{\text{Value of } e\text{-submitted services contracts}}{\text{Total value of services contracts}} \times 100$, $\frac{\text{Value of } e\text{-submitted works contracts}}{\text{Total value of works contracts}} \times 100$</td>
</tr>
<tr>
<td><strong>Value</strong> of contracts formed through E-GP (% of total government procurement)</td>
<td>$\frac{\text{Value of } E\text{-GP contracts}}{\text{Total value of contracts}}$</td>
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<tr>
<td></td>
<td></td>
<td>Number of contracts awarded through e-submission</td>
<td>$\frac{\text{Number of } e\text{-submitted contracts}}{\text{Total number of contracts}} \times 100$</td>
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<td></td>
<td></td>
<td>Number of goods, services, and works contracts awarded through e-submission</td>
<td>$\frac{\text{Number of } e\text{-submitted goods contracts}}{\text{Total number of goods contracts}} \times 100$, $\frac{\text{Number of } e\text{-submitted services contracts}}{\text{Total number of services contracts}} \times 100$, $\frac{\text{Number of } e\text{-submitted works contracts}}{\text{Total number of works contracts}} \times 100$</td>
</tr>
<tr>
<td><strong>Volume</strong> of contracts formed through E-GP (% of total number of contracts)</td>
<td>$\frac{\text{Number of } E\text{-GP contracts}}{\text{Total number of contracts}}$</td>
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<td></td>
<td>Number of contracts awarded by a CPB or through a centralized purchasing arrangement</td>
<td>$\frac{\text{Number of } e\text{-submitted contracts}}{\text{Total number of contracts}} \times 100$</td>
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</tr>
</tbody>
</table>
| Value and volume of contracts with SMEs as contracting parties – awardees (% of total public procurement) | Number and value of contracts awarded to large companies
\[
\frac{\text{Value of contracts awarded to large companies}}{\text{Total value of contracts}} \times 100
\]
| Number and value of contracts awarded to SMEs
\[
\frac{\text{Value of contracts awarded to SMEs}}{\text{Total value of contracts}} \times 100
\]
| Number and value of contracts awarded to large foreign companies
\[
\frac{\text{Value of contracts awarded to large foreign companies}}{\text{Total value of contracts}} \times 100
\]
| Number and value of contracts awarded to foreign SMEs
\[
\frac{\text{Value of contracts awarded to foreign SMEs}}{\text{Total value of contracts}} \times 100
\]
| Number and value of framework agreements awarded to SMEs
\[
\frac{\text{Value of framework agreements awarded to SMEs}}{\text{Total value of framework agreements}} \times 100
\]
<table>
<thead>
<tr>
<th>Synthentic Indicators (country based)</th>
<th>Basic Indicators (from platforms level)</th>
<th>Efficiency Improvement Indicator for Contracting Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price reduction/price variation savings indicator</td>
<td>$S \equiv \left[ \frac{R-P}{R} \right] \times 100$</td>
<td>Average length of pre-award stage (from contract notice to contract award notice)</td>
</tr>
<tr>
<td>$S$ – Percentage Savings</td>
<td>$\frac{\sum_{i=1}^{n}(R_i-P_i)}{\text{Number of contracts with price variation}} \times 100$</td>
<td>Average length of central purchasing procedure</td>
</tr>
<tr>
<td>$R$ – the Buyer’s Reserve Price</td>
<td>$\frac{\sum_{i=1}^{n}(R_i-P_i)}{\text{Number of contracts with price reduction}} \times 100$, $S &gt; 0$</td>
<td>FTEs per type of procedure</td>
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<tr>
<td>$P$ – the awarding price</td>
<td>Average price variation indicator</td>
<td>Average administrative cost per type of procedure</td>
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<tr>
<td></td>
<td>Average price reduction indicator</td>
<td>Efficiency Improvement Indicator for Economic Operators</td>
</tr>
<tr>
<td></td>
<td>Comparison with non-E-GP-awarded prices (a sample for showcasing)</td>
<td>Average length of bid preparations</td>
</tr>
<tr>
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<td>Average % of savings in open procedures</td>
<td>Average cost per procedure</td>
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<td></td>
<td>Average % of savings in e-auctions</td>
<td>Type of electronic authentication required</td>
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<td>Average % of savings in framework agreements</td>
<td>Total cost for participating in public procurement procedures (by type of contract)</td>
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<tr>
<td></td>
<td>Average % of reduction in price at call-off stage</td>
<td>Efficiency Improvement Indicator for Economic Operators</td>
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<td>% of contracts awarded on the basis of lowest price</td>
<td>Average length of bid preparations</td>
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<td>% of contracts awarded on the basis of most economically advantageous tender</td>
<td>Average cost per procedure</td>
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<td>Average length of pre-award stage (from contract notice to contract award notice)</td>
<td>Type of electronic authentication required</td>
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<td>Average length of central purchasing procedure</td>
<td>Total cost for participating in public procurement procedures (by type of contract)</td>
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<td>FTEs per type of procedure</td>
<td>Efficiency Improvement Indicator for Economic Operators</td>
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<td>Average administrative cost per type of procedure</td>
<td>Average length of bid preparations</td>
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<td>Average cost per procedure</td>
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<td>Type of electronic authentication required</td>
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<td>Total cost for participating in public procurement procedures (by type of contract)</td>
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$\Sigma$ Length of contract’s pre-award stage

$\Sigma$ Length of bid preparations

$\Sigma$ Costs per procedure

DATA

DATA

DATA

DATA
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<th>Competition</th>
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<tr>
<td>• Average number of bidders per type of contract (goods, services, works)</td>
</tr>
<tr>
<td>• % of direct awards versus total number and value of public contracts</td>
</tr>
<tr>
<td>• % of contracts awarded to SMEs in number and value</td>
</tr>
<tr>
<td>• % of contracts divided into lots in number and value</td>
</tr>
<tr>
<td>• % of contracts divided into geographical lots</td>
</tr>
<tr>
<td>• % of contracts divided into quantitative lots</td>
</tr>
<tr>
<td>• % of subcontracts in number and value per type of contract</td>
</tr>
<tr>
<td>• % of contracts awarded to consortia (grouping), number and value</td>
</tr>
<tr>
<td>• Average ratio between required economic and financial capacity (e.g., annual turnover, net income, etc.) and estimated contract value</td>
</tr>
<tr>
<td>• % of abnormally low tenders</td>
</tr>
</tbody>
</table>

\[
\text{Competition} = \frac{\sum \text{Bidders per goods contracts}}{\text{Number of goods contracts}} \times 100
\]

\[
\text{Competition} = \frac{\sum \text{Bidders per services contracts}}{\text{Number of services contracts}} \times 100
\]

\[
\text{Competition} = \frac{\sum \text{Bidders per works contracts}}{\text{Number of works contracts}} \times 100
\]

\[
\text{Number of direct awarded contracts} \times 100
\]

\[
\text{Value of direct awarded contracts} \times 100
\]

\[
\text{Number of contracts awarded to SMEs} \times 100
\]

\[
\text{Value of contracts awarded to SMEs} \times 100
\]

\[
\text{Number of contracts divided into lots} \times 100
\]

\[
\text{Value of contracts divided into lots} \times 100
\]

\[
\text{Number of contracts divided into geographical lots} \times 100
\]

\[
\text{Number of contracts divided into quantitative lots} \times 100
\]

\[
\text{Number of goods subcontracts} \times 100
\]

\[
\text{Value of goods subcontracts} \times 100
\]

\[
\text{Number of services subcontracts} \times 100
\]

\[
\text{Value of services subcontracts} \times 100
\]

\[
\text{Number of works subcontracts} \times 100
\]

\[
\text{Value of works subcontracts} \times 100
\]

\[
\text{Number of contracts awarded to consortia (grouping)} \times 100
\]

\[
\text{Value of contracts awarded to consortia (grouping)} \times 100
\]

\[
\sum \frac{\text{Financial capacity requirement}}{\text{Contract value}} \times 100
\]

\[
\frac{\text{Number of abnormally low tenders}}{\text{Total number of bids}} \times 100
\]
| % of environmentally responsible contracts (% of total public procurement) | Number of environmentally responsible contracts  
Total number of contracts  
Value of environmentally responsible contracts  
Value number of contracts  |
|---|---|
| % of socially responsible contracts (% of total public procurement) | Number of socially responsible contracts  
Total number of contracts  
Value of socially responsible contracts  
Value number of contracts  |
| Litigation indicator | Number of contracts subject to non-judicial reviews and court appeals  
Total number of contracts  
Value of contracts subject to non-judicial reviews and court appeals  
Total value of contracts  |

- Value and number of contracts whose formation procedure has included environment-related features or characteristics as technical specifications (not subject to competition/evaluation)
- Value and number of contracts whose formation procedure has included environmental selection or award criteria
- Value and number of contracts awarded following a procedure containing life cycle costing award criteria

| Number of contracts with environmental technical specifications  
Total number of contracts  
× 100  
Value of contracts with environmental technical specifications  
Value number of contracts  |
| Number of contracts with environment–related selection or award criteria  
Total number of contracts  
× 100  
Value of contracts with environment–related selection or award criteria  
Value number of contracts  |
| Number of contracts awarded following a life cycle award criterion  
Total number of contracts  
× 100  
Value of contracts awarded following a life cycle award criterion  
Value number of contracts  |

- Value and number of contracts whose formation procedure has included social-related features or characteristics as technical specifications (not subject to competition/evaluation – “must have”)
- Value and number of contracts whose formation procedure has included social-related selection or award criteria – “to be evaluated/scored”
- Value and number of contracts awarded following a procedure giving rise to dispute

| Number of contracts with social–related features  
Total number of contracts  
× 100  
Value of contracts with social–related features  
Value number of contracts  |
| Number of contracts with social–related selection or award criteria  
Total number of contracts  
× 100  
Value of contracts with social–related selection or award criteria  
Value number of contracts  |
| Number of contracts awarded following a life cycle award criterion  
Total number of contracts  
× 100  
Value of contracts awarded following a life cycle award criterion  
Value number of contracts  |

- % of contracts subject to non-judicial review
- % of contracts subject to court appeals
- Number of appeals per year
- Average value of contracts giving rise to dispute
- Average length of review procedures
- Average length of appeal procedures
- CA/EO winning rate (% of total) review
- CA/EO winning rate (% of total) court appeals

| % of contracts subject to non-judicial review  
Total number of contracts  
× 100  
Number of court appeals  
Total number of contracts  
× 100  |

DATA

| ΣValue of contracts giving rise to dispute  
Number of contracts giving rise to dispute  |
| ΣLength of review procedures  
Number of review procedures  |
| ΣLength of appeal procedures  
Number of appeal procedures  |

| Reviews won by contracting authorities  
Total number of reviews  
× 100  
Reviews won by economic operators  
Total number of reviews  
× 100  |
| Court appeals won by contracting authorities  
Total number of court appeals  
× 100  |
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<tr>
<th>Monitoring and auditing</th>
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<tr>
<td>• Value and number of ex-ante (before awarding decision) controlling procedures (% of total)</td>
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<tr>
<td>• Value and number of compliance audits</td>
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<tr>
<td>• Average length of audits (months)</td>
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</table>

<table>
<thead>
<tr>
<th>Transparency indicator</th>
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<tbody>
<tr>
<td>• Number and value of tenders published on the web (% of total procurement)</td>
<td></td>
</tr>
<tr>
<td>• Public access to all tender stages information</td>
<td></td>
</tr>
<tr>
<td>• Quality of information per type of contract and stage of procedure provided and accessible to EOs and CAs (rank 1 to 5)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ease of access</th>
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<tbody>
<tr>
<td>• % of contracts reserved to national bidders</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitudinal indicator demand side (CAs)</th>
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</thead>
<tbody>
<tr>
<td>• Five mostly perceived benefits from E-GP</td>
<td></td>
</tr>
<tr>
<td>• Five mostly perceived barriers to adopting E-GP</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitudinal indicator supply side (EOs)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Five mostly perceived benefits from E-GP</td>
<td></td>
</tr>
<tr>
<td>• Five mostly perceived barriers to adopting E-GP</td>
<td></td>
</tr>
<tr>
<td>SYNTHETIC INDICATORS (country based)</td>
<td>BASIC INDICATORS (from platforms level)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------------------------------------</td>
</tr>
</tbody>
</table>
| % increase of Bank-funded contracts formed through e-Submission in value and number | ▪ Total value of Bank-funded contracts  
▪ Total number of Bank-funded contracts  
▪ Average value of Bank-funded contracts by type of contract (goods, services, works)  
▪ Average value of Bank-funded contracts by type of procedure (ICB/LIB/NIB/Shopping/FAs/Direct Contracting)  |
| \( \frac{\text{Number of e–submitted Bank–funded contracts}}{\text{Number of e–submitted Bank–funded contracts}} \times 100 \) \( y+1 \) \( y \) \( Y – \text{Year of reference (baseline)} \) | DATA  
DATA  
\[ \frac{\sum \text{Value of Bank–funded goods contracts}}{\text{Total number of Bank–funded goods contracts}} \]  
\[ \frac{\sum \text{Value of Bank–funded services contracts}}{\text{Total number of Bank–funded services contracts}} \]  
\[ \frac{\sum \text{Value of Bank–funded works contracts}}{\text{Total number of Bank–funded works contracts}} \]  
\[ \frac{\sum \text{Value of Bank–funded contracts}}{\text{Total number of Bank–funded contracts}} \] |
### ANNEX IV-A: KEY DOCUMENTS (Open Contracting Data Standard)

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<thead>
<tr>
<th>PLANNING</th>
<th>TENDER/INITIATION</th>
<th>AWARD</th>
<th>CONTRACT</th>
<th>IMPLEMENTATION</th>
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<tbody>
<tr>
<td>Basic</td>
<td>Procurement plan</td>
<td>Tender notice, Bidding documents, Technical specifications, Evaluation criteria</td>
<td>Award notice</td>
<td>Contract notice</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Public hearing notice, Market studies</td>
<td>Eligibility criteria, Clarifications to Bidders, Questions, Shortlisted firms</td>
<td>Evaluation report</td>
<td>Signed contract, Arrangements for ending contract, Schedules and milestones</td>
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<tr>
<td>Advanced</td>
<td>Environmental impact, Assessment of government’s assets and liabilities, Needs assessment, Feasibility study, Project plan</td>
<td>Provisions for management of risks and liabilities, Bill of quantity, Information on bidders, Conflicts of interest uncovered, Debarments issued</td>
<td>Winning bid, Complaints and decisions</td>
<td>Annexes to the contract, Guarantees, Subcontracts</td>
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**ANNEX IV-B: PUBLICATION LEVELS (Open Contracting Data Standard)**

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