

4.2 Public procurement

In addition to its role as regulator, the public sector also has an immense impact on E&C through its role as project owner. Government procurement accounts for a major share of total construction expenditures worldwide: for example, 31% in the United Kingdom, 44% in Germany and a staggering 57% in the United States.¹⁰³

As the E&C industry's most important client, governments need to actively manage and coordinate public-sector demand, and thereby drive industry change. It is also their duty to prevent corruption in the system, in order to promote efficiency in procurement and provide equal opportunities for bidders. The more progressive governments have started to reform procurement and are adjusting bidding requirements and processes to stimulate innovation and whole-life-cycle optimization.

Actively managed and staged project pipelines with reliable funding

Given the sheer size and complexity of the public-sector project pipeline, its active management is a challenging task, and one that is often badly neglected. Ideally, a government defines and implements a holistic strategy to optimize procurement along several dimensions – notably, the composition of the project portfolio, the governance of procurement activities and the attractiveness of the project pipeline to potential bidders.

When it comes to compiling the public-sector project portfolio, multiple objectives (conflicting to some extent) need to be aligned. For an optimal prioritization of projects, it is crucial to first develop a strategic procurement plan. Such a plan provides guidance for the required cost-benefit analyses at the project level, and helps to reconcile economic considerations and industrial, social and environmental targets. Once a project has been chosen, the procuring authorities should focus on maximizing efficiency in the acquisition of goods and services – for example, by choosing smart delivery mechanisms and by implementing rigorous evaluation and benchmarking processes both within and across departments.

A more effective governance of public procurement can be achieved through the following measures:

- Put in place clear organizational structures and operating models for planning and execution
- Assign task forces to drive high-priority projects
- Apply lean principles to public procurement – for example, by appointing process owners and specifying cycle and lead times
- Equip government teams with the appropriate skills and tools to function as an “intelligent client”

Finally, the public-sector project pipeline should be attractive to potential bidders. This attractiveness can be enhanced through such measures as these:

- Ensure visibility of the forward pipeline to help providers respond to market opportunities and ensure a stable project pipeline over time
- Provide a clearly defined bidding model and information-rich tenders
- Offer SMEs training on public procurement procedures
- Provide dedicated, continuous funding, ideally through a public fund

EXAMPLE: The *United Kingdom* recently launched several initiatives relating to the management of the public-sector project pipeline. To mention just a few:

- (i) Project pipelines for 19 sectors are being published online and updated every six months to create a level playing field for providers of any size.
- (ii) Cost benchmarking of construction projects across departments now provides a solid baseline for cost-led procurement.
- (iii) The Major Projects Leadership Academy, in cooperation with the Saïd Business School, has been established to enhance project-management skills and capabilities across government.

Strict implementation of transparency and anti-corruption standards

Bribery and corruption exist in all industries but, in E&C-related procurement, collusions between government staff and bidders are particularly common, even in developed countries. A study prepared for the European Commission, examining 192 public procurement projects in eight EU countries, found a probability of corruption of 9-21% in the road and rail sector, 28-43% in water and waste, and 37-53% in urban or utility construction.¹⁰⁴ Corruption drives up procurement cost substantially, by an estimated €1.3-1.9 billion per year, in the eight countries studied.

To ensure integrity in public contracting and thereby promote efficiency and fairness towards bidders, governments need to rigorously implement comprehensive anti-corruption and transparency frameworks. These efforts should address all stakeholders along the value chain, and should include the following measures:

Create a corruption-resilient procurement environment

- Generally, implement laws, institutions and practices for preventing corruption in line with international standards (for instance, the United Nations Convention against Corruption and the OECD Anti-Bribery Convention); join integrity pacts, such as the Partnering Against Corruption Initiative led by the World Economic Forum
- Ensure that procuring authorities and tenderers commit beforehand to anti-corruption
- Offer anti-corruption training courses and foster knowledge sharing across procurement departments to create a transparent culture aware of corruption risks

- Implement operational best practices, such as job rotation and screening of pre-employment history, to ensure the integrity of procurement departments and staff

Implement fair and transparent procurement procedures

- Establish clear procedures so that all parties are equally aware of project dimensions, criteria for evaluation, and the timeline and stages of the procurement process
- Ensure that evaluators act independently from tenderers (by engaging probity auditors, for example)
- Enhance transparency by making all details of the procurement process and the results available to the public (via social networks and video streaming, for instance)

EXAMPLE: The *Construction Sector Transparency (CoST)* initiative is a partnership between participating countries and international stakeholders, designed to enhance the accountability of procuring bodies and construction companies for the cost and quality of public-sector construction projects through a standardized public-disclosure process. The disclosure includes comprehensive information about the project at different points in its life cycle, as well as justifications for any significant deviations from budget and schedule. A CoST pilot in Ethiopia, for example, showed that public-sector projects exceeded their cost targets by more than 50% and their time targets by more than 100%. As a result, departments have now committed to ensuring greater compliance with procurement regulations and to performing feasibility studies for any major project.

Establish clear practices regarding the prosecution of corruption

- Introduce national and international laws aimed at punishing corruption
- Perform proper screening of contractors and suppliers, including the possibility of blacklisting
- Conduct regular and independent audits based on the data provided during the procurement process
- Collaborate with independent investigation agencies

Innovation-friendly and whole-life-cycle-oriented procurement

Traditionally, public procurement has largely relied on design-bid-build schemes with a strong tendency towards the lowest bid. This focus on initial construction costs not only neglected the total cost of ownership, but also seriously inhibited innovation and productivity improvements. The traditional approach is gradually being replaced, however, as governments start to see the merits of DB and PPP, and introduce more flexible and outcome-oriented bidding requirements. The new procurement models are being used in numerous major public-sector projects worldwide – including *Crossrail*, one of the world's largest infrastructure projects.

To improve bidding schemes in respect of innovation

and construction performance, a government should first review the asset and process specifications in light of newly available technology and materials, as well as other procurement objectives such as total-life-cycle cost and sustainability.

On the basis of that assessment, several steps can be taken to create the right incentives for bidders:

- Introduce more flexible bidding and contracting models with improved risk sharing, such as DB and PPPs

EXAMPLE: *Seattle's* largest water-treatment facility, which provides 70% of the city's drinking water, was procured on the basis of a design-build-operate contract. That produced cost savings of 30% relative to the city's initial estimate and enabled state-of-the-art water-treatment technology that had previously been inaccessible to the public sector.

- Engage in performance-based procurement (including such factors as sustainability criteria)
- Integrate TCO and life-cycle costing into bidding requirements, and link operator payments to KPIs

EXAMPLE: An *EU Directive*, in force since February 2014, allows the procurement of projects on the basis of cost-effectiveness throughout their whole life cycle. This reflects a shift towards longer-term, holistic thinking, and a shift away from a focus on initial cost.

- Require that answers to requests for proposals make reference to new technologies and building materials

EXAMPLE: The *United Kingdom* requires the use of fully collaborative 3D BIM (with all project and asset information, documentation and data being electronic) on government projects by 2016.

- Ensure compliance with labour standards; for example, ensure that the work is carried out in a safe physical environment, in conditions that respect workers' rights as defined in national laws and international conventions

EXAMPLE: In the *International Labour Organization Declaration of Fundamental Principles and Rights at Work*, core labour standards are defined, covering four areas:

- elimination of forced or compulsory labour
- elimination of child labour
- elimination of discrimination in respect of employment and occupation
- freedom of association and the effective recognition of the right to organize and the right to collective bargaining