Achieving Quality Through Smart Procurement

RIAI 2019
Quality of design and sustainable development means achieving the right building, in the right place at the right time.
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1. Executive Summary

The Government and public bodies are the largest procurers of architecture and design services in the State. Procurement decisions of government departments, agencies and local authorities have a lasting impact on the quality of the built environment and have a direct and immediate impact on the workload of the construction supply-chain, including design teams.

The procurement process provides opportunities to embed quality into the procurement of public projects. However, current systems as applied by many public bodies negate innovation and focus on quality outcomes in favour of cost risk transfer to the private sector in a drive for certainty in an inherently uncertain process.

The public procurement system needs to be recalibrated to achieve the optimum long-term results and value for money from Government investment.

**How is Change Achieved?**

Procurement agencies must focus on achieving quality buildings that deliver long-term sustainable results and value for money. Quality of design and sustainable development means achieving the right building, in the right place, at the right time, for the right cost. As this report shows, relegating quality of design to an optional ‘add-on’ to the procurement process simply means risking costly retrospective changes to a project once it has commenced, with higher whole-life costs.

Significant improvements to the procurement process can be made across the whole construction sector – from infrastructure to housebuilding, and from design through construction to maintenance, repair and occupation – with relatively small changes in approach.

1. A whole-life integrated approach would improve productivity and end-user satisfaction and deliver better social and economic benefits.

2. An effective procurement process will focus on the quality of the outcome.

Industry and Government have to work together to achieve these improvements. In the recently published National Development Plan, Government made commitments for unprecedented levels of investment in infrastructure requiring enormous financial and resource support within the construction sector.

“In a challenging economic climate, we should not question whether we can afford to deliver good design. Instead, we should ask, can we afford not to? Good design is not a costly, aesthetic layer to be added at the conclusion of an enterprise. Good design is a process that uses creativity and innovation to deliver the best outcomes. Good design can guarantee that we get it right first time, avoiding scenarios where we are left with problem buildings or places which fail our communities.” [1]

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Good design is a process that uses creativity and innovation to deliver the best outcomes.
2. Background

Public procurement takes place when the State does not have the resources or capacity to deliver all necessary public infrastructure itself and retains architects and construction professionals from the private sector to do so.

In taking on publicly funded projects, firms look to the procuring body to provide clarity and certainty about the type of project required, to enable them to understand the brief and quantify risk, and to have an understanding of the timelines so that they can resource the project and generate fee income in respect of services provided.

While it is true that no client sets out to procure a bad building, failures to embed quality outcomes within the procurement process result in this happening. The design of the procurement process as it currently exists, frequently disincentivises participation of potential suppliers.

Evidence from a September 2018 RIAI survey of Irish architectural practices\[2\] suggests that while 51% of firms do compete for publicly procured works, a significant number do not. Reasons for not competing for public works include:

- Excessive bureaucracy involved in the procurement process;
- Poorly drafted briefs;
- Forms of contract which do not encourage collaborative work practices;
- Uncertainty about the extent of the commission and timescale of the proposed development;
- Excessive risk transfer from the procuring body leading to higher costs.

Administrative issues such as minimum turnover levels and evidence of previous experience effectively rules many small firms out of competing for public works, while for firms which meet those thresholds, uncertain timescales and poor briefs make public contracts unattractive. There is also evidence that poor briefs, including limited information on design specifications, add to the overall time to bring new public sector developments to completion, compared to private developments.\[3\]

The UK’s Commission for Architecture and the Built Environment summarised these issues in its recommendations to procurement agencies:

Stop

- Regarding good design as an optional extra.
- Treating lowest cost as best value.
- Valuing initial capital cost as more important than whole-life cost.
- Treating buildings as purely functional plant without civic significance.
- Imagining that effectiveness and efficiency are divorced from design.
- Being frightened to take calculated risks.
- Assuming that the public does not care.\[4\]
In a challenging economic climate, we should not question whether we can afford to deliver good design. Instead, we should ask, *can we afford not to?*
3. Why Does Good Design Matter in the Capital Programme?

Good design adds value to the quality of the project and to the public realm. Good design can assist in spearheading regeneration through stimulating investment in the built environment. Government can make investment decisions which lead to significant efficiencies in terms of the whole-life costs of the project providing value for money.

Quality of design is an important driver of the standards of our building assets and the public realm with consequences for both quality of life and Ireland’s attractiveness as a place in which to live, work and invest.

Ratio of Design to Life-Costs

Cost in operation to client
Cost of maintenance
Cost of building
Cost of design

The built environment is a significant source of greenhouse gases and, as Ireland endeavours to meet our international climate change obligations, clients and contractors will be required to reference the environmental impact of the lifecycle of a new building at the initial stages of procurement.

Design is not simply about aesthetics – it means the usability, durability, value for money and appearance of the building during its life. It means delivering within budgetary constraints. Architects design and deliver buildings to be long lasting, useful, purposeful and attractive for their clients, users and the wider community.

As the above shows, the cost of design is a very minor component of the overall cost of a project. Yet, decisions on design have a huge impact on the functionality of a building, its capital cost and the costs of maintenance and day-to-day management. Retrospective improvements to the design of an in-progress development, at either design or construction stage, will almost always be costly.

Design Outcomes

- Embedding quality design into the procurement process will deliver significant cost savings over the lifecycle of a building.
- A quality detailed brief reduces delays and capital costs caused by the need to redesign at a later stage.
- Good design mitigates the effects of climate change.
- Good design delivers sustainable communities.
- Good design delivers value for money.
A quality detailed brief reduces delays and costs caused by the need to redesign at a later stage.
4. What is the Cost of Good Design?

To be a smart client, Government must embed the importance of quality of design over the life cycle of the project into the procurement stage. This is the time to consider the cost-effectiveness of a specific project throughout numerous potential uses, taking into account the upfront costs of acquisition, on-going resources and energy consumption in the daily use, maintenance and end of life costs (such as recycling, land reclamation and infrastructural legacies), as well as wider environmental impacts of the presence of the building. As this report shows, good decisions at procurement stage can result in significant savings in running costs over the life of the building.

The Government of Victoria, Australia has noted:

*Victoria’s future reputation for good design and the quality of its built environment relies upon recognising the value that design adds over the lifetime of the building. Well-designed buildings have a direct impact on the standard of public services provided and the quality of life of those who use them.*[6]

The RIAI believes that current procurement systems do not embed design innovation. The procurement process focuses frequently on minimising the cost of design and construction, rather than achieving value for money, bringing designers into the process later than is advisable, and therefore achieving sub-optimal outcomes in respect of both capital cost and the cost of long-term performance. In a recent RIAI survey architectural firms cited poor design briefs, unclear requirements and weak knowledge of design issues by procurement agencies as reasons for their reluctance to tender for public works contracts.[7]

It is a responsibility of Government to put measures in place to ensure that Quality of Design and Procurement for Value are at the heart of public procurement policy.

4.1 Quality Design and Value for Money in the Lifecycle of a Building[8]

It is vital that procurement agencies are resourced and skilled to become ‘smart clients’ to procure high-quality, well-designed buildings that fulfil their intended purpose and add to the overall quality of the built environment. Procurement agencies must be able to communicate these principles within design briefs to provide sufficient clarity and information to allow architects and other construction professionals to tender for these projects.

4.2 Procuring for Value

Procuring for value requires focus on the following:

1. Outcome-based procurement to drive delivery and whole-life performance using value models which encompass design, construction, maintenance and use costs.

2. Increased transparency on the performance of suppliers and built assets. The procurement process has become so focused in minimising the capital cost of the built asset that little attention is given to the performance of either suppliers or of the assets.

3. Improving procurement efficiency to address supply-side issues around risk, profit and uncertainty.

4. Ensuring that the Public Procurement processes encourage and support new participants entering into markets.

5. Good design and procurement must be underpinned by rigorous risk assessment and clearly defined approval stages.

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[7] RIAI Practice Sentiment Survey 2018
5. The Current Procurement Practice

5.1 Uncertainty within Briefing Documents
Across Ireland, individual procurement agencies take different approaches when appointing architects and construction professionals to undertake contracts on their behalf. It is the experience of design teams that the approach taken by clients when preparing design briefs and engaging with potential contractors have consequences for the successful outcome of the project. Issues such as the level of detail on design briefs, the extent of collaboration between client, design team and contractor all have an impact on the quality of the completed project.

A desire by procurement agencies to harness cost certainty in an inherently uncertain process, as well as a lack of decision-making expertise within some procurement agencies, undermines the successful delivery of public projects, leading to increased conflict between parties and risking increased litigation and delay.

Briefing documents may be unclear, incomplete or open to differing interpretation by competing design teams. In order to allow design teams to submit fixed fees, briefing documents should be sufficiently clear to provide clarity to all parties who wish to tender for public contracts.

Recommendations
- Where fixed fees are sought, the client sets a fee range and invites the bidders to compete on service and expertise.
- Until such time as briefing documents are sufficiently finalised, tenders should be sought on a percentage basis, with allowances to be made for contingencies during the project – allowing for percentage fees until the brief is finalised to the satisfaction of all parties after which a fixed fee may be agreed.
- To assist public bodies develop functional and clear design briefs, it is recommended that an internal client design advisory team, consisting of relevant professionals be put in place. The purpose of this advisory team will be to provide expert rigorous challenge and oversight throughout the design, permitting, procurement and construction phases of each project to speed-up decision making to deal with contingencies as they arise.
- For smaller projects, especially those run by inexperienced clients, a similar advisory team should be established to provide technical assistance on design briefs before tenders are sought and to work collaboratively during the life of the contract.

5.2 Use of Panels and Frameworks
Current applications for the panels and frameworks sponsored by the many public bodies are time-consuming for design practices. In many cases, procurement agencies use their own version of the prequalification process and do not use common criteria, sub-criteria or document formats.

Differences in the questions or wording of current Suitable Assessment Questionnaires (SAQs) demand that each application is analysed de novo. Frequently the criteria and sub-criteria generate queries that then take further effort to resolve and many applications fail due to simple errors or misinterpretation of the SAQ questions.
The function of the SAQ/ESPD is to allow applicants to describe the resources and skills of the organisation and its employees in sufficient detail to allow the sponsor to admit or exclude them from a particular framework or panel. However, the information currently sought frequently goes beyond that needed at this stage and can be very time consuming and costly for the applicant to put together and for the sponsor to evaluate. While it is the EU’s intention to simplify the process with the introduction of the ESPD, current examples in the public domain appear overly complex and unwieldy.

**Recommendation**

The process to assess eligibility to tender for work should be streamlined through the use of ‘Procurement Passports’ where architects and construction professionals would submit turnover, staffing figures and other relevant information to a centralised agency in order to be added to a panel who would be automatically eligible to tender for appropriate projects. Detailed information would only be required from firms on the shortlist.

**5.3 Fixed-price Tenders**

Fixed-price tenders do not allow for the factoring in of construction inflation which may occur during the period of the contract. This leads to Architects and other consultants having to estimate likely inflation when submitting tenders - creating significant risk for their businesses.

**Recommendations**

- It is recommended that Consumer Price Index (CPI) for Professional Services be written into the contract.

During a period of significant capital investment, it is important that resources are not wasted because of flaws in the procurement process. In some cases, projects are awarded before capital funding has been secured for the delivery of the project. These delays in commencing projects make it difficult for firms to allocate resources and schedule other work.

- It is recommended that public bodies do not appoint design teams (or expose them to the cost of tendering for public projects) until the budget to deliver the project is in place.

**5.4 Contractual Responsibilities of the Architect**

At award-stage, many difficulties occur in circumstances when other design team members are appointed directly by the client but whose performance is the responsibility of the architect. This makes the lead Architect liable for failures by other firms but without a meaningful contractual relationship. It also leads to confusion over roles and responsibilities in relation to project risk mitigation, which can result in significant cost overruns. The establishment of clear lines of responsibility and suitable project governance is key to the mitigation of risk and the achievement of value for money.

In the case of contracts under which the architect is appointed by the client and the other design team members are appointed as sub-consultants, there are serious financial implications in circumstances where the Construction Contracts Act requires the lead Architect to pay other professional services within thirty days of payment falling due, but being subject to withholding tax on their invoices.

**Recommendations**

- It is recommended that the issue of withholding tax is addressed to enable wider participation by practices in public projects.

- A mechanism is required to exclude companies with a track record of non-performance on previous contracts from tendering for public contracts.

- Clear roles and responsibilities and accountability of all members of the project team must be set out in the project brief.
During a period of significant capital investment, it is important that resources are not wasted because of flaws in the procurement process.
6. Creating a Culture of Good Design

6.1 The Role of the Design Team
The design team comprises architects and other consultants such as engineers and quantity surveyors. To achieve the best outcome they will work alongside those in the client team with responsibility for financing the development to ensure value for money is achieved.

The in-house client team represents the interest of the procurement agency as the owner/sponsor of a proposed development and its users (e.g. students, hospital patients, office users and the public). The client team inform and guide the process, set timescales and determine the outcomes for the project. It is therefore vital to achieve a good outcome that the members of the client team have the requisite professional expertise to assess the skills sought in the successful design teams to ensure they are competent in the process of delivering projects and have the skills to provide rigorous challenge and oversight throughout the life of the project.

6.2 Good Design in the Procurement Process
Procurement is best understood as a continual process beginning with the identification of specific building requirements, immediate and long-term needs, and consideration of the location and usage of the required building. A procurement procedure, underpinned by a clearly defined brief, is the means to select the best team to design and deliver the best outcome.

To achieve the desired outcomes, it is critical that the expectations of all stakeholders are managed and all issues considered in the development of a clear brief and design.

6.3 The Role of the Design Champion
To get the outcomes that clients desire, there is a need to have a design champion on the procurer’s team who is focused on driving the best quality long-term outcome and value for money for the project. As the client and commissioning agency, public bodies have a responsibility to factor good design into their procurement decisions and communicate this through the tender documents.

Recommendation
- Client briefs and tender documents should be explicit in expecting consultants to consider good design and value for money in their proposals.
- Quality of design must be considered by procurement agencies at the earliest stages in pre-procurement preparations. It should not be considered as an optional “bolt-on” aspect of procurement, but rather be at the heart of procuring new buildings to ensure optimal value for money.

“Well-designed buildings and places make the most of sites and their opportunities, enabling the best and most efficient use for owners, occupants and other users, while also providing benefits to the broader public and future generations.”[9]

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6.4 Why Clients Should Champion Good Design

The quality of Ireland’s built environment requires careful consideration of good design and a commitment by procurement agencies to quality in the design of individual public buildings, the public realm and infrastructure.

Factors that impact on design outcomes include:
• Vision Statement
• Quality of the Brief
• Business Case
• Adequacy of the Budget
• Adequacy of the Programme
• Design Review
• The Management of the Process
• Ability of the Design Team, and
• Skill and Competence of the Contractors, Subcontractors and Specialists

6.5 Using Vision Statements to Embed Quality Design into Procurement

The vision of the project sets the ambition which the client wishes to see delivered in the design and construction of the building. This includes a detailed rationale for the investment in a public project, as well as an indication of where it fits into the public estate.

6.6 The Business Case

The Business Case needs to articulate the main aim of the project, the reasons for it, the revenue sources, and how it will be funded. The business case considers the viability of the investment across the whole-life of the project – the business case should not only set out how the proposed project will solve a need (such as the requirement for new schools in an area of population growth) but also statements on how the project will be operated and maintained as part of an overall planning and land use strategy until its end-of-life.

The Business Case should evaluate the economic relationship between the site cost, design cost, building cost, whole-life costs, the project brief, project schedule, risk mitigation and approval processes, while remaining focussed on the intended outcome for the project, noting the overall savings that can be made by factoring quality design at initial vision statement stage.

Decisions on procurement should be made on the basis of a long-term view of value for money, rather than selecting on the basis of lowest initial price.

This stage should include a design study to illustrate the client’s vision, objectives and brief, and explore options to suggest how the project may best be delivered and risks mitigated. The designed options can then be evaluated against the project objectives, and assist in the determination of the most appropriate value for money outcome.

6.7 Procuring Design Services

A number of methods of procurement are available to government and public bodies, depending on the cost, complexity, scale and funding arrangement of the project. It is essential that key criteria be established for the selection, that focus on design capability and capacity, giving significant weighting to these criteria. It is important that the team tasked with the role of selecting the design team be qualified to do so in order to identify and determine which procurement process should be used.

The Design Brief

The design team brief must be comprehensive and complete and must be presented in such a way to explicitly set out the extent and stages of the services required, including any specialist requirements. It should explain the scope of the project and the ambitions that need to be met by a design team. It should focus on outcomes of the design process and the business objectives of the design project. Changing the brief during the design or later phases will inevitably lead to significant cost and other risks.
6.8 Using Post-Occupancy Evaluation to Inform Design Decisions

Embedding quality design into the initial procurement process requires consideration to be given to the on-going use of the development, and should require consideration for Post-Occupancy Evaluation. This is an on-going analysis of the performance of a built outcome measured against specified objectives. It can be undertaken as a detailed study by specialist consultants, or as a series of surveys at regular intervals seeking feedback from operators and users.

Post-Occupancy Evaluation is crucial to encouraging good project outcomes and it is a way of reliably finding out whether a project was a success and can inform future projects. It can identify the success and weaknesses in processes, can provide a resource of relevant benchmarks and inform the continual improvement of the outcomes of public procurement.

<table>
<thead>
<tr>
<th>Procurement Participant / Stakeholder</th>
<th>Role and Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner / Principal / In-house Team</td>
<td>In the case of Government, the client agency funding the project or the end users of the building/development.</td>
</tr>
<tr>
<td>Architect / Design Team</td>
<td>Professional consultants engaged to produce building design, documentation, manage the delivery and ensure that quality, budgets and deadlines are adhered to. Depending on the type of project this includes the architect, quantity surveyor or cost consultant; engineering consultants (civil, mechanical, electrical, etc); planners; landscape architects and interior designers.</td>
</tr>
<tr>
<td>Construction Contractor / Builder</td>
<td>The firm responsible for the management of the construction component of the building delivery process.</td>
</tr>
<tr>
<td>Subcontractor or Supplier</td>
<td>Appointed by the construction contractor, this term refers to trade contractors and material manufacturers and resellers.</td>
</tr>
<tr>
<td>Operator / Facilities Manager</td>
<td>The entity that runs and maintains the building/development. This will sometimes be the same agency as the owner/principal.</td>
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</tbody>
</table>
The vision of the project sets the ambition which the client wishes to see delivered in the design and construction of the building.
Industry
Industry bodies, institutions (including the RIAI) and companies should:

1. Develop an industry-wide definition of value that takes into account briefing, design, construction, maintenance and whole-life costs.

2. Produce a universal methodology for procurement and promote common and consistent standards across industry.

3. Work with the relevant government departments on the development of cost and performance benchmarks for building assets and suppliers which demonstrate measures to increase capacity, productivity, off-site construction value and reduce embedded and operational carbon.

4. Create an end-user rating system for built assets.

5. Consider with Government how to support innovation and best practice in the construction sector.

Government and Public Bodies
Government departments should:

1. Work with the industry to establish cost and performance benchmarks for buildings.

2. Implement Construction Industry Register Ireland (CIRI) on a statutory basis to protect standards.

3. Support the development of a standardised Pre-Qualification Questionnaire (PQQ) and a cross-industry pre-qualification process that can be adopted across the public and private sectors.

4. Work with clients and firms in the construction sector to build a consensus position on fair payment practices. Ensure there are good payment practices throughout the construction supply chain on public projects.

5. Prepare new collaborative forms of contract for public design services and construction works and promote the use of these.

A joined-up approach is required from industry, government and public bodies.