

Procurement

Who should read this fact sheet ?

Many construction clients are not regular purchasers of construction work. This fact sheet is an introduction to construction procurement for occasional clients with a basic to intermediate understanding of the procurement process.

How to get started

Occasional clients frequently face a steep learning curve on their construction project. Yet establishing a procurement strategy at the outset is key to a successful outcome. A review of the UK Construction Industry called 'Accelerating Change' identified 'Six Key Steps' that a client should take to devise a procurement strategy. This fact sheet looks at those key steps and concludes with some signposts to further useful information.

Taking independent advice

Clients considering a construction project are likely to want a solution which will meet their needs, at a cost they can afford, at an acceptable date in the future. There could be a variety of strategies to achieve this.

Taking impartial professional advice is useful, though there is no standard method of obtaining such advice. The type of professionals who could help an occasional client with impartial advice include architects, surveyors, designers, building contractors and building services companies, provided they are not to be involved in the construction project itself.

Step 1 Verifying need for the Construction Project

Output: Statement of needs – the value proposition
Achieving a successful solution depends upon verifying the need for a project. This process should emanate from the client's value proposition or business case for the project and should involve all stakeholders including those who will take the risks associated with the project and those who will be directly involved in using the completed facility. The process will need to establish and prioritise the objectives to be met by the project and the financial and physical programme parameters.



Figure 1 Key Steps a Client must consider when faced with a business need (from Accelerating Change)

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Step 2 Assessing the Options

Output: Business Case

Constructing a new facility might not be only way to meet the client's value proposition. Renting, leasing, buying an existing facility or extending or altering existing premises could provide alternative and possibly cheaper solutions. All options must be assessed and evaluated at an early stage in project development.

After confirming the need and assessing all options, a more detailed case for the project should be developed. This will involve considering return on capital investment, the likely benefits to operational efficiency or income flow.

Even at this early stage, initial concept designs can be developed to enable the client and those who will use the new facility to look at how initial designs will respond to business needs.

Step 3 Developing Procurement Strategy

Output: Strategic Brief

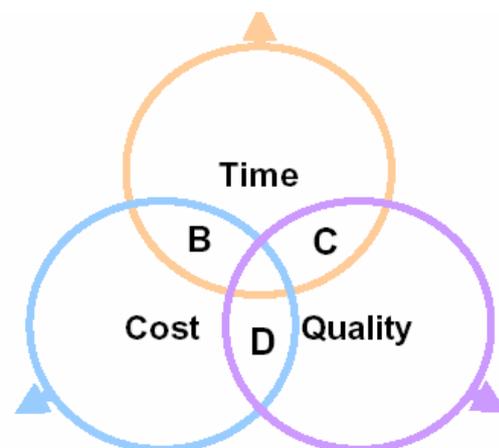
The bespoke nature of many construction projects increases the inherent risks. These risks include completing a project which does not meet needs, which is delivered late or costs more than the client can pay or fund. All these risks can impact the client's core business, seriously. The procurement strategy developed should balance risks against project objectives at an early stage.

The key criteria listed below are interdependent and often in tension:

- time (speed or certainty of completion date)
- cost (price level or cost certainty)
- quality (functionality and performance)

Emphasis on only one of the key criteria will almost certainly have a negative effect upon the others. The business case will help determine which criteria are most important and which could constitute the greatest risk.

In most cases the priorities of the projects will fall into the areas illustrated as B, C or D in the diagram where two of the three criteria are identified as most important to project success. It is rare for time, cost and quality to be equal in either importance or impact.



There are procurement strategies which will achieve:

- Certainty of cost and time for a design developed by an architect employed by the client. However, this is a sequential and consequently slow process. (known as the **traditional procurement process or design-bid-build**)
- Relative speed and cost certainty. However, the design will usually be the responsibility of a contractor and consequently the client will lose some control over the design process. (**known as design-build**)
- Relative speed for a design developed by an architect employed by the client. However, cost is uncertain almost until completion. (known as either **management contracting or construction management**).

Here, we look at each of these strategies in a little more detail:

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Traditional or Design-Bid-Build

This is probably the most commonly used method of procurement and it is suitable for:

- all clients, including inexperienced clients
- complex projects and projects where functionality is a prime objective
- time predictability
- cost certainty.

However, it is not suitable for fast track projects.

The client develops the business case for the project, provides a brief and budget and appoints a team of consultants to prepare a design, plus tender documents. The client appoints the building contractor to construct the works to the design, by the contract completion date and for the agreed price. Usually much of the work is sub-contracted to specialist firms but the contractor remains liable. The consultants administer the contract on behalf of the client and advise on aspects associated with design, progress and stage payments which must be paid by the client. The separation of the contractor from the design can mean missed opportunities for contractor or specialist contractor to input.

This strategy is a low-risk option for clients who wish to minimise their exposure to the risks of overspend, delays or design failure. However, the exposure to risk will increase where the design phase is rushed, where unreasonable time targets are set or where the tender documents are not fully completed.

There is a refinements to this method which involves a two stage tender.

- **Two stage tender** – contractor's tenders are based on a partially developed consultant's design (stage 1 tender). The contractor then assists with the final development of the design and tender documents, against which tenders for the construction works are prepared (stage 2 tender). Whoever put forward the first stage tender has the opportunity to tender or negotiate the second (construction) stage. This approach increases the risks of an increase in overall price and a less certain completion date but contractor involvement is likely to increase the likelihood that both these criteria are realistically established.

Design-Build

This method of procurement involves the contractor being responsible for design as well as construction, it can be suitable for:

- all clients, including inexperienced clients and those requiring distance from the project.
- cost certainty
- faster track

However, it is not suitable for:

- an uncertain or developing client brief
- complex buildings

The main contractor takes responsibility for both design and construction and will use either in-house designers or employ consultants to carry out the design. Most of the construction work will be carried out by specialist or sub-contractors.

The contractor tenders against a client brief and will often follow an initial concept design prepared by consultants appointed to advise the client.. The design will be developed by the contractor and the works will be completed, usually for a fixed price. Tendering is more expensive so it carries more risk for the contractor than the traditional approach. This is because the contractor has to develop an outline design and a detailed price. Tender lists will probably be shorter than for traditional contracts.

The Design-Build approach gives the client a single point of contact. However, the client commits to the cost of construction, as well as the cost of design, much earlier than with the traditional approach. Whilst risk is shifted to the contractor, it is important that design liability insurance is maintained to cover that risk. Changes made by the client during design can be expensive, because they affect the whole of the Design-Build contract, rather than just the design team costs.

There are variations on this approach:

- **Develop and Construct** – where the client has the design prepared to concept or scheme design stage and the contractor takes on 'finishing off' the design and construction. The contractor may re-employ the original designers to complete the design.

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- **Package Deal** – where the contractor provides an off-the-shelf building. The building type is often modular so that its size can be adjusted. Typical examples are farm, factory, warehouse and straightforward office buildings.

Management Contracting

This is suitable for:

- fast track projects
- complex buildings
- a developing brief

However, it is less suitable for:

- inexperienced clients
- cost certainty before starting construction
- clients wanting to pass risk to the contractor

The client appoints designers and a contractor (management contractor) separately and pays the contractor a fee for managing the construction works. A feature is the early appointment of the contractor to work alongside the design team to develop a programme for construction and contribute to the design and costing of the works. The works are let competitively by the management contractor to subcontractors and specialists in appropriate works packages. This approach often means that design and the start on site overlap, with the design and tender packages becoming available 'just-in-time' to suit the construction programme.

The management contractor will not carry out construction work. This preserves the management contractor's independence and reinforces a consultancy relationship with the client. Payment is made to the management contractor on the basis of the cost of the works packages plus the agreed fee

Much of the success of this approach depends on the contractor's team. Unless the team is drawn from companies which are experienced in this kind of team working, the benefits are not always realised.

There is less price certainty at the outset, because construction tends to start ahead of completion of all design stages and at a point when many of the work packages have yet to be tendered. This often means adjustments are made to the design and specification of works packages later in the programme to keep the project within budget. However, the overall process of

design and construction tends to be shorter than in either design-bid-build or design and build situations.

- **Construction Management** – is similar in concept to Management Contracting. Contractors are contracted directly to the client and the construction manager manages the process for the client on a simple consultancy basis. Construction Management requires constant involvement by the client so it is really only suitable for experienced clients.

Step 4 Implementing Strategy

Output: Selection of the Project Team

Selecting a project team is important. Team members should be selected on the quality of their reputation, their track record for similar projects, their capacity to do the work and the size of their fees. The client must feel comfortable with the way the professionals appointed will handle the desired strategy. Again, the client could look to sources of independent advice to assist in the selection process, particularly when it comes to evaluating tender packages.

Step 5 Project Delivery

Output: The Business Solution

When the project team has been selected the project can progress through developing initial design work to preparing drawings and documents to illustrate the project, achieving planning consent, defining standards to be met and allocating responsibilities. During this period the client (or project sponsor or project manager) should:

- ensure land purchase is completed on time, if necessary
- ensure the design process is consistent with the strategic brief
- ensure an internal decision-making system is in place to avoid design delays
- keep the wider client organisation informed
- set up an appropriate funding framework to ensure payments can be made (which often do not meet the usual trading conditions of the client's core business)

The construction phase will progress under the management of the project manager or the project team.

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Step 6: Post Project Review

Output: Captured Learning

A post-completion assessment by stakeholders involved at the outset will enable both the client and the project team to learn from the experience and assess whether the project objectives have been fully achieved.

This is particularly useful if future projects are planned or where stakeholders have not been directly involved with the project during its development.

buildings does not stop at the completion of the construction work but that there is a continuing and difficult to predict cost of ownership over the life of the building.

Next Steps:

- A booklet for first time or occasional clients called 'Building Success: Lessons from Clients who got it Right' is available from Constructing Excellence. See the website: www.constructingexcellence.org.uk or call the helpdesk on 0845 605 5556
- Information about other resources related to procurement is also available on the Constructing Excellence website.