



GLOBAL SUSTAINABLE DEVELOPMENT

IN ASSOCIATION WITH SODERLUND AND SCHUTTE



Support Programme for Accelerated Infrastructure Development (SPAID)

EDUCATION SECTOR INFRASTRUCTURE PROCUREMENT AND CONTRACTING ANALYTICAL FRAMEWORK

Report submitted in fulfilment of second deliverable for appointment to develop an education infrastructure procurement and contracting strategy for the Limpopo Department of Education

Sixth draft

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1 Introduction

1.1 Introduction to the project

The Support Programme for Accelerated Infrastructure Development (SPAID) is a partnership between the Business Trust and the Presidency of the South African Government. It is a two year support programme that mobilises private sector resources to accelerate public sector delivery in the infrastructure sector of South Africa, so that the infrastructure targets set by the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) can be achieved.

SPAID identified the need to pilot the development of a sector specific infrastructure procurement strategy as part of its Technical Assignments Programme and in support of its objective to find innovative means to accelerate and improve infrastructure delivery through the mobilisation of private sector resources and know-how,. Given the priority status of Education, it was agreed with the SPAID Steering Committee that the first pilot should be in the education sector.

The Limpopo Department of Education (DoE) has been identified as a partner with which to develop and test an education sector infrastructure procurement strategy in three phases.

The first phase involves the production of an infrastructure plan¹. This phase has been completed. The second phase of the project, which is the subject of this report, involved the development of a generic methodology for identifying a suitable procurement strategy for infrastructure spend. The third phase which is to follow will involve testing the generic methodology by applying it to Limpopo DoE's infrastructure plan to identify an appropriate procurement strategy for Limpopo DoE's infrastructure spend.

1.2 The regulatory framework for government construction procurement

Public sector procurement is governed by the legislative framework established in the Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996), Public Finance Management Act (Act 1 of 1999), Local Government: Municipal Finance Management Act, 2003 (Act No 56 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000) and a number of other pieces of legislation.

Under the Public Finance Management Act, National Treasury has issued a Supply Chain Management Framework and subsidiary guidelines, regulations and practice notes. Government procurement within the construction industry is also subject to the Construction Industry Development Board Act (CIDB), 2000 (Act 38 of 2000). The Supply Chain Framework requires organs of state to follow the prescripts and practice notes issued by the CIDB.

The CIDB regulates construction procurement through the Construction Industry Development Regulations, the CIDB Standard for Uniformity in Construction Procurement and the CIDB Code of Conduct for the Parties engaged in Construction Procurement. These are supported by a range of inform practice notes and best practice guidelines (see www.cidb.org.za).

¹ The development of an infrastructure development plan involves the collection and collation of data on needs, prioritisation of the needs and a review of existing current and forecast education infrastructure plans in Limpopo. This includes documenting the methodology used by Limpopo DoE for identifying their needs and translating them into a prioritised five year infrastructure plan. The first phase report concluded that, although there were shortcomings with regard to the currency of the backlog data used in the planning process, the methodology which Limpopo DoE used to produce its infrastructure plan was logical and relatively robust. It was underpinned by equity considerations and appeared to be directing expenditure towards the most urgent needs. It was also found to be in line with the Infrastructure Delivery Improvement Programme (IDIP) planning guidelines and broadly in line with the recently promulgated Government-wide Immovable Assets Management Act (GIAMA). The report on the first phase therefore concluded that that implementation of the infrastructure plan would generally not result in procurement of 'the wrong things' and that the project should move to the next phase of developing a procurement strategy to enable the infrastructure to be procured in an optimal manner.

The CIDB construction procurement processes, procedures and methods are supported by a number of South African national standards. The construction procurement processes, procedures and methods that were developed by the CIDB and Standard South Africa (a division of the South African Bureau of Standards) currently form the basis of an 8 part series of international standards for construction procurement (ISO 10845, *Construction Procurement*) which have reached an advanced stage of development and are scheduled to be published in 2010.

The CIDB is in the process of publishing a series of construction procurement booklets covering the following topics to improve the performance of those involved in construction procurement:

- Construction procurement
- Delivery management cycle
- Legal framework
- Managing processes
- Procurement documents
- Conditions of tender
- Expressions of interest
- Social and economic objectives
- Applying the register of contractors

The CIDB's has also developed an Infrastructure Delivery Management Toolkit (IDIP Toolkit) in collaboration with National Treasury. The CIDB has published this toolkit in support of National Treasury's Infrastructure Delivery Improvement Programme (IDIP). The IDIP Toolkit serves as the basis for consistent and improved public sector infrastructure delivery. It provides a systematic approach to infrastructure delivery covering the full cycle from needs identification, planning and budgeting through to procurement, construction, handover and maintenance. It also provides appropriate procedures and guidelines for delivery managers in the public sector by linking them to relevant policy, legislation and regulation that underpin the planned implementation of government's infrastructure.

However, an analysis of the suite of CIDB guidance documents, including the IDIP Toolkit, indicates that there is an absence of processes, procedures and methods relating to the selection by a government body of an appropriate procurement strategy for a transaction. This has resulted in the prevailing situation in which organs of state (with some exceptions) generally only utilize time honored and familiar procurement strategies. Most organs of state do not draw on the full range of procedures and methods described in the CIDB documents, to achieve the best value solution in a given situation. As a result, poor and disappointing delivery outcomes are frequently encountered.

This document describes a generic methodology for an organ of state to determine an appropriate procurement strategy for the delivery or maintenance of infrastructure, or a combination thereof. It provides a framework within which employer-specific strategies can be developed.

The CIDB has expressed an interest in utilising the methodology to address the gap in its suite of documents.

2 Background

2.1 Construction works

Construction works are a combination of goods and services arranged for the development, extension, refurbishment, rehabilitation or demolition of a fixed asset, including building and engineering infrastructure. Construction works involve:

- equipment (items provided by the contractor and used by him to provide the works and which is not required to be incorporated into the works);
- plant (machinery, heavy equipment or apparatus installed in the works for the operation of a system for conveying water, gas, warm air, electricity or waste)
- materials;
- labour;
- professional services, and
- finance.

Construction works are seldom an “off the shelf purchase.” Construction works need to be maintained.

Strategy in the delivery and maintenance of construction works may be considered to be the skilful planning and managing of the delivery process. It involves a carefully devised plan of action which needs to be implemented. It is all about taking appropriate decisions in relation to available options and prevailing circumstances in order to achieve optimal outcomes.

2.2 Terminology

For the purpose of this document, the definitions given in the CIDB Standard for Uniformity in Construction Procurement and the following apply:

brief: a working document which specifies at any point in time the relevant needs, aims and resources of the client, the context of the project and any appropriate design or maintenance requirements within which all subsequent briefing (when needed) and designing can take place

client: a government department responsible for initiating and financing a project and approving the brief

capability: having sufficient skill, competence and contextual knowledge to potentially perform specific construction procurement or delivery management activities

capacity: having sufficient resources to effectively perform specific construction procurement or delivery management activities

contracting strategy: strategy that governs the nature of the relationship which the employer wishes to foster with the contractor, which in turn determines the risks and responsibilities between these two parties and the methodology by which the contractor is to be paid²

delivery management: the management of the process of public service delivery as applied to infrastructure and maintenance projects

² The contracting strategy balances flexibility to introduce changes that can be anticipated but not defined at tender stage, incentives for efficient contractor performance and risk sharing between the employer and the contractor.

eligibility criteria: criteria which have to be satisfied in order for the employer to evaluate a submission made in response to a call for an expression of interest or an invitation to submit a tender

employer: client or implementing agent intending to or entering into a contract with the contractor for the provision of services, or construction works

implementing agent: an agent of the client who is a government department or state owned enterprise which implements a programme or project on a client's behalf

maintenance: combination of all technical and associated administrative actions during an item's service life with the aim of retaining it in a state in which it can perform its required functions

package: the construction or maintenance work carried out under a single contract

package plan: a number of packages which collectively form a project

packaging of the works: the manner in which a project is defined and broken down ("packaged") into separate contracts

performance requirements: performance demanded or expected to be fulfilled

pricing strategy: strategy to secure financial offers and to remunerate contractors in terms of the contract

procurement procedure: selected procedure for a specific procurement³

procurement: the process which creates, manages and fulfils contracts⁴

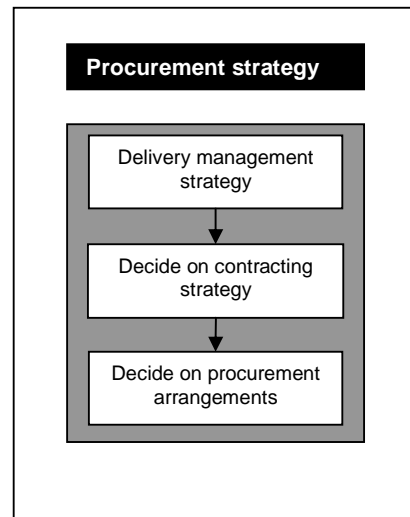
procurement strategy: the delivery management strategy, contracting strategy and procurement arrangements for a particular procurement

programme: the grouping of a set of related projects in order to deliver outcomes and benefits related to the organisation's strategic objectives which would not have been achieved had the projects been managed independently⁵

programme management: a value adding business function that interfaces strategic management and project management with the aim of realising the potential outcomes and benefits of a programme

project: what is to be constructed or maintained

service life: period of time after installation during which a building or infrastructure or its parts meet or exceed the performance requirement(s)



2.3 Stages in a construction project

A construction project is defined at any point in time in the project delivery cycle by the:

- project brief;

³ The specific procedures provided in the CIDB Standard for Uniformity in Construction Procurement are negotiated, competitive negotiations, or competitive selection (nominated, open, qualified, quotation, proposal or shopping) procedures.

⁴ Procurement encompasses all activities from the time that the need for procurement is established until such time that the need is fulfilled.

⁵ These outcomes and benefits of a programme are usually related to the economies of scale which can be achieved through the adoption of a programme approach.

- design;
- project programme which identifies key dates and time periods for the performance of the works and services associated with the project; and
- project cost.

The project brief needs to be converted into information which enables construction to take place i.e. the scope of work for a contract.

The common stages in the project delivery cycle are described in Table 1, i.e. preparation, concept, design development, production information, manufacture, fabrication and construction information and post works completion. In relatively simple repetitive projects some of the stages will be simplified and may be merged together.

Table 1: Actions and deliverables associated with the various possible stages of a construction works project

Stage		Key deliverable at end of Stage	Principal actions associated with the key deliverable
No	Description		
1	Preparation	Client approved strategic brief setting out the project definition information	<ul style="list-style-type: none"> • Define the project objectives, business need, acceptance criteria and client priorities and aspirations. • Establish project criteria, including function, use, scale, location, quality, cost, value, time, safety, health, environment and sustainability. • Identify procedures, organizational structure, key constraints, statutory permissions and strategies to take the project forward.
2	Concept	Client approved concept report setting out the integrated concept for the project	<ul style="list-style-type: none"> • Establish the detailed brief, scope, scale, form, and budget for the project, including the obtaining of site studies and construction and specialist advice. • Determine the initial design criteria, design options, cost estimates, and the selection of the preferred design option.
3	Design development	Client approved design development report setting out the integrated developed design for the project	<ul style="list-style-type: none"> • Develop in detail the approved concept to finalise the design and definition criteria. • Establish the detailed form, character, function and cost plan, defining all components in terms of overall size, typical detail, performance and outline specification.
4	Production information	Completed and client accepted production information	<ul style="list-style-type: none"> • Produce the final detailing, performance definition, specification, sizing and positioning of all systems and components enabling either construction (where the contractor is able to build directly from the information prepared) or the production of manufacturing and installation information for construction.
5	Manufacture, fabrication and construction information	Client accepted manufacture, fabrication and construction information	<ul style="list-style-type: none"> • Define the fabrication, manufacturing details and installation of all components, including temporary works and connection details • Select proprietary equipment and components • Verify testing of components and systems • Create operation and maintenance manuals
6	Post works completion	Completed services	<ul style="list-style-type: none"> • Finalise and assemble record information • Conduct post-project review • Finalise outstanding services.

Each stage has a clear start, an end point and a defined level of detail. Each stage ends with a specified deliverable. Stages may run concurrently and the project brief is successively developed as the project progresses. The brief is the strategic brief at the end of stage 1, the concept report at the end of stage 2 and the design development report at the end of stage 3.

The project stages provided in Table 1 do not include a procurement stage as the procurement arrangements may vary from project to project.

Construction may commence after the completion of stage 4 deliverables. Defining what is to be constructed does not end with the completion of the production information. Stage 5 recognizes that additional information may have to be prepared by the Contractor and his team (subcontractors, suppliers and specialists) to satisfy the production information prepared by others.

3 Developing a procurement strategy

A procurement strategy is by definition the delivery management strategy, the contracting strategy and the procurement arrangements. The procurement strategy identifies the best way of achieving the objectives for the project and value for money, taking into account risks and constraints.

The process in arriving at a procurement strategy flowing out of a 5 year infrastructure development plan developed in accordance with the guidance provided in the IDIP Toolkit is outlined in Figure 1.

It should be noted that the output of the delivery management strategy is to identify in a given financial year how infrastructure needs are to be met. Needs may be met through any combination of the following:

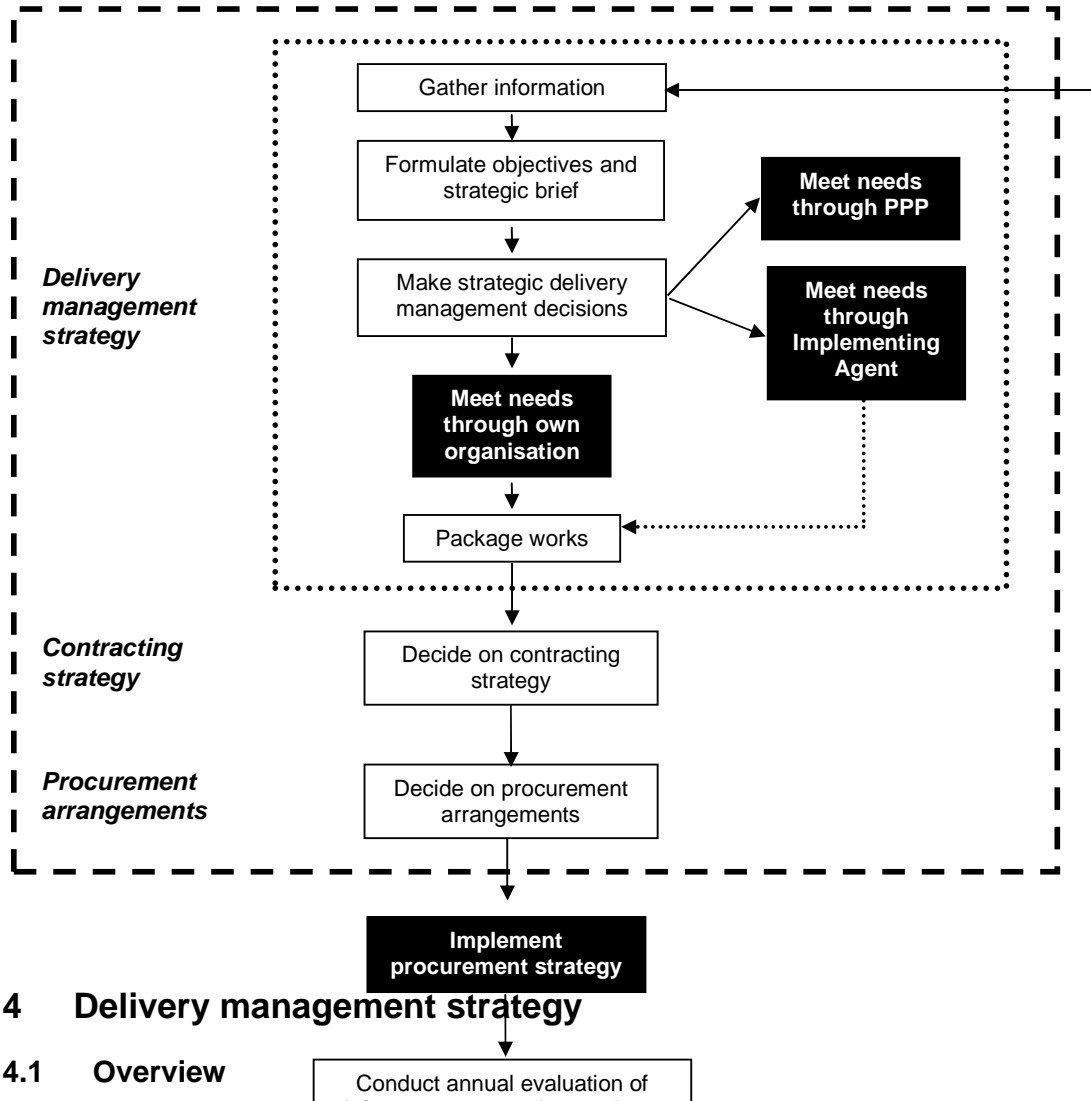
- a) Public Private Partnerships (PPPs);
- b) implementing agent(s); or
- c) own organisation either using internal staff or on an outsourced basis.

Implementing agents, if appointed will need to package the works, decide on the contracting strategy and procurement arrangements to finalise the procurement strategy.

Once the necessary decisions relating to the delivery management strategy, the contracting strategy and the procurement arrangements have been made, the procurement strategy may be implemented in respect of each package. Thereafter, depending upon the choices that are made, the design team might need to be managed, and the contract managed or administered in accordance with the provisions of the contract. Programme management will also be required where projects are delivered in terms of a programme.

It is important to conduct an annual evaluation of the efficacy of decisions made. This will inform the choices made in the subsequent year and contribute to any improvements in decisions made in subsequent years.

Procurement strategy



4 Delivery management strategy

4.1 Overview

The first stage in developing a procurement strategy is to decide on the delivery management strategy using the process outlined in Figure 2 and described below.

4.1.1 Note: A procurement strategy is the selected delivery management strategy, contracting strategy and procurement arrangements for a particular procurement

St

Action: Produce approved infrastructure plan using the IDIP Toolkit or update infrastructure

Figure 1: The annual cycle for the development of procurement strategies for infrastructure spend

Output:

Step 1.2: Spend analysis

Action: Analyse spend in the infrastructure plan:

- cluster needs in terms of types of output e.g. construct a new school, maintain a circuit office

- categorise the clusters in respect of commonality in respect of the following attributes, as relevant:
 - nature of work (e.g. building or civils, construction or maintenance, new construction or refurbishment⁶ or alterations⁷ or extensions⁸, preventative maintenance⁹ or corrective maintenance¹⁰ or scheduled maintenance¹¹ or routine maintenance¹²)
 - unit value (e.g. high, medium and low)
 - potential for standardisation (e.g. high, medium and low)
 - one of a kind projects or repetitive projects
 - time schedule urgency (e.g. high, medium, low)
 - organizational and managerial complexity in terms of number of managerial interfaces / hierarchical layers either within an organization or project structure / stakeholders to be managed) (e.g. high, medium, low)
 - technical complexity or level of innovation (e.g. high, medium or low)
- identify spatial locations of needs per category
- identify needs which may occur simultaneously on the same site

Output: Categorised, spatially defined prioritised needs list(s) .

⁶ Refurbishment is modification and improvements to an existing plant, building or works, in order to bring it up to an acceptable condition.

⁷ Alterations involve the changing or modifying the character or condition of a building, plant or engineering works.

⁸ Alterations are additions to an existing building

⁹ Preventive maintenance is maintenance carried out at predetermined intervals or according to prescribed criteria and intended to reduce the probability of failure or the degradation of the functioning of an item. Preventive maintenance includes condition-based tasks that consist of condition monitoring, inspection and functional testing. Predetermined intervals apply to repair or replacement that is carried out at specific intervals such as elapsed time, operating hours, distance, number of cycles or other relevant measures.

¹⁰ Corrective maintenance is maintenance carried out after fault recognition and intended to put an item into a state in which it can perform a required function

¹¹ Scheduled maintenance is preventative maintenance carried out in accordance with an established time schedule or an established number of units of use.

¹² Routine maintenance is regular or repeated elementary maintenance activities of a preventative nature which usually do not require special qualifications, authorisations or tools.

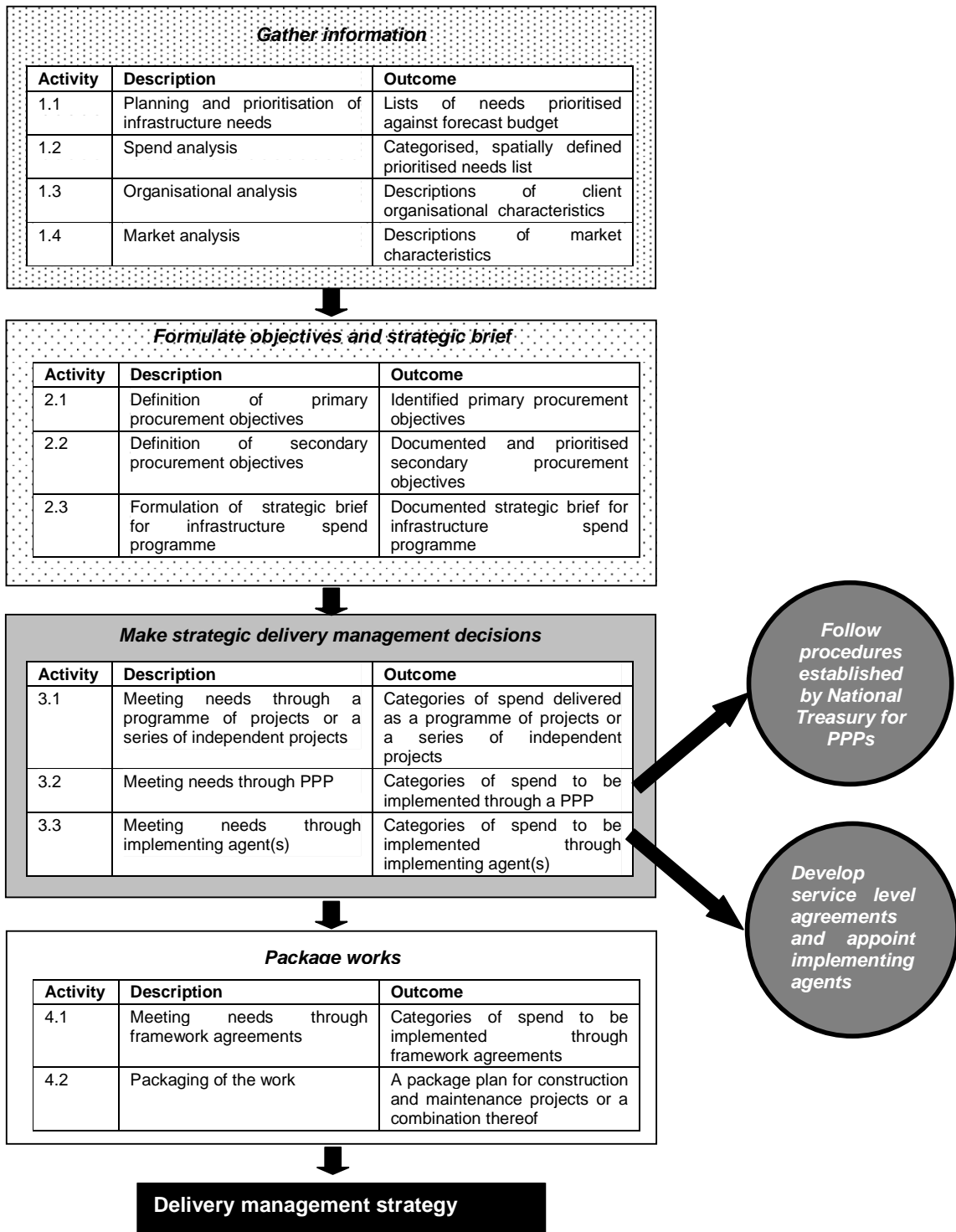


Figure 2: Deciding on the delivery management strategy

Step 1.3 Organizational analysis

Action: Identify level of client organisation's capacity and capability e.g. limited / adequate / unlimited including

- delivery management
- construction procurement
- design
- construction
- Project and programme management
- transaction advice

Identify client organisation's appetite for issues such as:

- increasing capacity
- putting new capabilities in place
- private finance
- assuming contractual risk
- transferring risk to other parties

Output Description of client organisational characteristics

Step 1.4: Market analysis

Action: Identify at a macro level the available external capability and capacity, e.g. limited / adequate / unlimited including

- construction using the CIDB register of contractors
- design
- project and programme management
- cost consultancy
- transaction advisors

Output: Descriptions of market characteristics

4.3 Formulate objectives and strategic brief

Step 2.1 Definition of primary procurement objectives

Action: Define the client's primary procurement objectives in terms of:

- tangible objectives including
 - budget (cost of the works)
 - schedule (time for completion)
 - quality and performance characteristics required from the completed works
 - environmental objectives
 - health and safety objectives
- intangible objectives including those relating to:
 - buildability i.e. the ease with which the designed building or infrastructure is constructed
 - relationships (e.g. long term relationship to be developed over repeat projects, early contractor involvement, integration of design and construction)
 - client involvement in the project
 - end user satisfaction
 - maintenance and operational responsibilities

Output: Identified primary procurement objectives

Step 2.2: Definition of secondary procurement objectives¹³

Action: Formulate secondary procurement objectives based on those listed in Table 4 and prioritise them in order of importance

Output: Documented and prioritised secondary procurement objectives

Table 4: Commonly encountered secondary objectives

Objective	Recommended usage
To promote broad based black economic empowerment	On all tenders where there are racial disparities in the profile of tenderers. Where it is desirable to promote broad based black economic empowerment through the application of the construction sector score card.
To promote gender equality	On tenders where it is desirable and justifiable to promote: <ul style="list-style-type: none"> • gender equity amongst tenderers as main contractors; or • employment opportunities for female workers
To provide work opportunities for SMMEs*	On projects where it is desirable and feasible to: <ul style="list-style-type: none"> • have SMMEs as a main contractor or joint venture partners • provide for mandatory subcontracting requirements or obligations to subcontract an agreed quantum of work
To alleviate poverty*	On projects where it is desirable and feasible to provide temporary work opportunities in construction, particularly in labour intensive works
To promote local economic development *	As for the provision of work opportunities SMME development but aimed at targeted local SMMEs
To develop cidb registered contractors	As for the provision of work opportunities SMME development but aimed at cidb registered contractors who have specific contractor grading designations.
To transfer / development skills	Where it is desirable to provide work place experience or training to designated persons
To minimise the transmission of HIV-AIDS	Where it is desirable to reduce the risk of transfer of HIV / Aids between and among construction workers and the local community
To reduce environmental impacts	Where it is desirable to promote reductions in negative environmental impacts beyond statutory performance
To improve health and safety performance	Where it is desirable to promote improvements in health and safety performance beyond statutory performance

*These objectives impact upon the goal of job creation

Step 2.3: Formulation of strategic brief for infrastructure spend

Action: Formulate strategic brief for infrastructure spend based on spend analysis, organisational analysis, market analysis and primary and secondary procurement objectives.

Output: Documented strategic brief for infrastructure spend

Note: The strategic brief should provide a synthesis at a high level in relation to each category of spend issues such as,

- needs in order of priority

¹³ Secondary procurement objectives are additional to those associated with the immediate objective of the procurement itself. Secondary procurement policy objectives influence procurement strategies both directly and indirectly. It is for this reason that secondary procurement policy needs to be considered as early as possible.

- allotted budget
- time frames for the attainment of milestones
- desired outcomes
- available internal resources to manage delivery
- appetite for risk, increasing capacity, introducing new capabilities within the client organisation, risk, private funding etc
- opportunities for promoting social and economic objectives
- technical requirements / user expectations
- critical success factors
- constraints and opportunities

No strategies to take categories of spend forward should be developed at this stage as such strategies will be developed and confirmed through the next steps.

4.4 Make strategic delivery management decisions

Step 3.1 Meeting needs through a programme of projects or a series of independent projects

Action: Review information gathered and procurement objectives and decide on programme or independent project approach, based on the decision criteria contained in Table 5.

Output: Categories of spend delivered as a programme of projects or a series of independent projects

Table 5: Decision table for independent projects / programme of projects

Options	Decision criteria
Independent projects	Use where <ul style="list-style-type: none"> • a project has one or a combination of the following characteristics <ul style="list-style-type: none"> ○ high monetary value ○ time and schedule urgency ○ organisational and managerial complexity (significant number of managerial interfaces / hierarchical layers either within an organization or project structure / stakeholders to be managed); or ○ technical complexity of high level of innovation; • a project is one of a kind; • there are little or no benefits to be gained by coordinating multiple projects.
Programme of projects	Use where: <ul style="list-style-type: none"> • there are benefits to be gained by coordinating multiple projects which will not be realised if the projects were managed independently; or • projects are linked to an overall client organisational strategy

Note: Programme management provides an umbrella under which several projects can be managed. Projects managed in this way are more likely to be driven by organisational needs rather than personal agendas.

Step 3.2 Meeting needs through PPP

Action: Evaluate possibility of meeting needs through a PPP using Table 6¹⁴

Output: Categories of spend to be implemented through a PPP

Note: The PPP procedures established by National Treasury must be followed for those categories of spend which will be implemented through a PPP. For other categories proceed to step 3.3.

¹⁴ A Public Private Partnership (PPP) is a contract between a public sector and a private sector party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project over time.

Table 6: Decision table for PPP or non-PPP

Consideration	Options		Decision criteria for PPP
	Non-PPP	PPP	
Contract outcome	Provide infrastructure	Provide assets and services which extend beyond construction for an agreed outcome over time.	The pre-requisites for using this option are that: <ul style="list-style-type: none"> • the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project over time • capability and capacity exist or can be put in place to effectively manage the PPP. • the nature of the service to be provide through the PPP is such that the risks can be clearly quantified and priced with certainty i.e. there must be a low level of intangibles e.g. potential for land claims or latent defects in existing infrastructure • the quantum of payments associated with the level of service to be provided through the PPP for the life of the PPP are affordable in the context of the client's available and forecast budget and identified needs • there is a high level of certainty that the usage of the facility will be required without alteration over the lifetime of the PPP • the needs to be met are spatially located such that the PPP can be efficiently implemented
Finance	On budget	Off budget (i.e. private finance required)	
Risk	Public body retains substantial risk relating to: <ul style="list-style-type: none"> • cost of construction, operation and maintenance • level of service 	Transfer substantial risk relating to: <ul style="list-style-type: none"> • costs • level of service to the private sector party 	

Note: The private sector partner in a PPP is incentivised to have the highest regard for life cycle costing as this partner is responsible not only for construction but also for maintaining the asset to a prescribed standard over a lengthy period of time.

Step 3.3 Meeting needs through implementing agent(s)

Action: Develop a service level agreement and appoint an implementing agent if:

- a) it is policy of the department not to be responsible for the delivery of an identified project, or
- b) there is insufficient capability and capacity or the appropriate skills sets to manage the delivery process, taking into account that different procurement and contracting options require different skills sets, and that some procurement and contracting options do not require the department to have the necessary in-house technical skills to direct the project implementation

Output: Categories of spend to be implemented through implementing agent(s)

4.5 Package works

Step 4.1 Meeting needs through framework agreements

Action: Evaluate possibility of meeting needs through framework agreements¹⁵ per category using Table 7

Output: Categories of spend to be implemented through framework agreements.

¹⁵ A framework agreement is an agreement between an organization and one or more contractors, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to price and, where appropriate, the quantity envisaged.

A framework agreement gives no work to a contractor and may be non-exclusive. It is a long term commitment between the parties to enable clients to place contracts on pre-agreed terms, pricing structure and specifications for certain types of work over a period of time (See CIDB Inform Practice Note #15 *Framework Agreements*).

Table 7: Decision table for framework agreement / non- framework agreement

Consideration	Options		Decision criteria for framework agreement
	Non-framework	Framework	
Contract outcome	Provide specific construction works	Provide broadly defined construction services over a period of time	Framework agreements are appropriate where: <ul style="list-style-type: none"> • The budgets available and the detailed scope of the needs are uncertain. • The potential for additional funds to be made available exists • The need involves repetitive work of a similar nature • A quick response time is required • Long term relationships (3 to 5 year) are desirable to achieve efficiencies The pre-requisites for using this option are that <ul style="list-style-type: none"> • enabling procurement policies and procedures are in place, and • capability and capacity exist or can be put in place to effectively manage the framework agreements
Procurement	Separate procurement process for each transactional contract	Appoint in terms of pre-approved framework or reopen competition between framework contractors	
Flexibility	Time frames, scope and level of service defined per transactional contract.	Flexibility in terms of time frames, scope and level of service	

Step 4.2: Packaging of the work

Actions: Establish project packages, ignoring professional services associated with the works, by balancing factors such as:

- independent project / programme of projects
- framework / non-framework agreements
- geographical spread of project
- desired maximum value of contract (subject to the prerequisite associated with this step)
- the technical mix of the work
- desire to avoid any awkward technical, contractual or logistical interfaces between contracts
- requirements for construction management
- construction programme including the development of the design
- marketability i.e. attractiveness of the packages to the market
- benefits derived from making the contractor responsible for not only providing the works, but also for maintaining or operating the works over time¹⁶

¹⁶ The making of a single contractor responsible for the design, construction and operation of buildings or infrastructure enables clients to require the contractor to demonstrate during the initial period of operation that the operating cost and performance parameters can be met in accordance with a pre-agreed cost model i.e. to prove the contracted assumptions. Making the contractor who designs a building responsible for the maintenance of the building incentivises the contractor to have the highest regard for life cycle costing as such a contractor is responsible not only for construction but also for maintaining the asset over a lengthy period of time.

- use of specialist contractors as direct contractors or as subcontractors to main contractors
- use of large main contractors to manage and mentor small contractors¹⁷
- secondary procurement objectives fit

Prerequisites: Projects can only be broken down into smaller contracts (unbundled) when:

- there is administrative capacity to administer the increased number of contracts that result from the unbundling of the project; and
- the unbundling does not result in an inappropriate division of responsibilities, increased contractual risk, duplication of establishment charges and under-utilization of resources.

Output: A package plan for construction and maintenance projects or a combination thereof

Note: The package plan identifies if the contract is a construction works contract or a maintenance contract or a contract involving both construction and maintenance. It does not provide any information on risk allocations.

¹⁷ Large projects are often unbundled into a number of smaller contracts in order to enable access to smaller local contractors and to further BBEE objectives. However, this needs to be balanced against the additional management capacity required to manage a large number of smaller contracts. A SPAID pilot project in eThekweni has demonstrated that this balance can be achieved through a single contract in which a large contractor is required to manage and mentor small local subcontractors. Further information on the structuring of such a contract may be obtained from CIDB Inform Practice Notes #1, *Scaling up delivery and accelerating empowerment*, #10 *Attaining social and economic deliverables* and #11 *Programme management approach to delivery*.

5 Contracting strategy

The second stage in developing a procurement strategy is to decide on the contracting strategy for each package and the professional services required to implement the contracting strategy using the process outlined in Figure 3 and described below.

Step 5.1: Formulation of initial strategic brief for a package

Action: Formulate initial (preliminary) strategic brief (see stage 1: preparation in Table 1 in relation to construction projects) in order to define the package.

Output: Documented initial strategic brief for package.

Note: No strategies to take the project forward should be developed at this stage as such strategies will be developed and confirmed through the next steps.

Step 5.2 Risk allocations

Construction service options

Actions: 1) Identify a range of appropriate contractual arrangements and related pricing strategies as identified in Tables 8 and 9 for each package, linking to the market analysis, and primary procurement objectives with reference to the following factors (see Figure 4):

- cost (price certainty)
- time (early start and or completion driven by income streams, the use the functional space, the facility or service or structure, budgetary cycles, disruptions to existing facilities and services, project / programme objectives e.g. spending the budget, etc)
- quality (high or prestige level required)
- complexity (innovative or technically sophisticated end product)
- influence or control the client wishes to exert over the design
- who is best able to carry out the design
- influence or control the client wishes to exert over the management of the planning, interfaces, risk, design or construction
- controllable variation
- flexibility (avoid costly variations)
- risk (transfer risk to contractor)
- accountability (single contractual link to employer)
- availability of internal (organisational) and external (market) resources required to provide the works
- incentives to achieve client objectives (e.g. link design and construct responsibilities to maintenance and operation of a facility responsibilities for a period post construction)

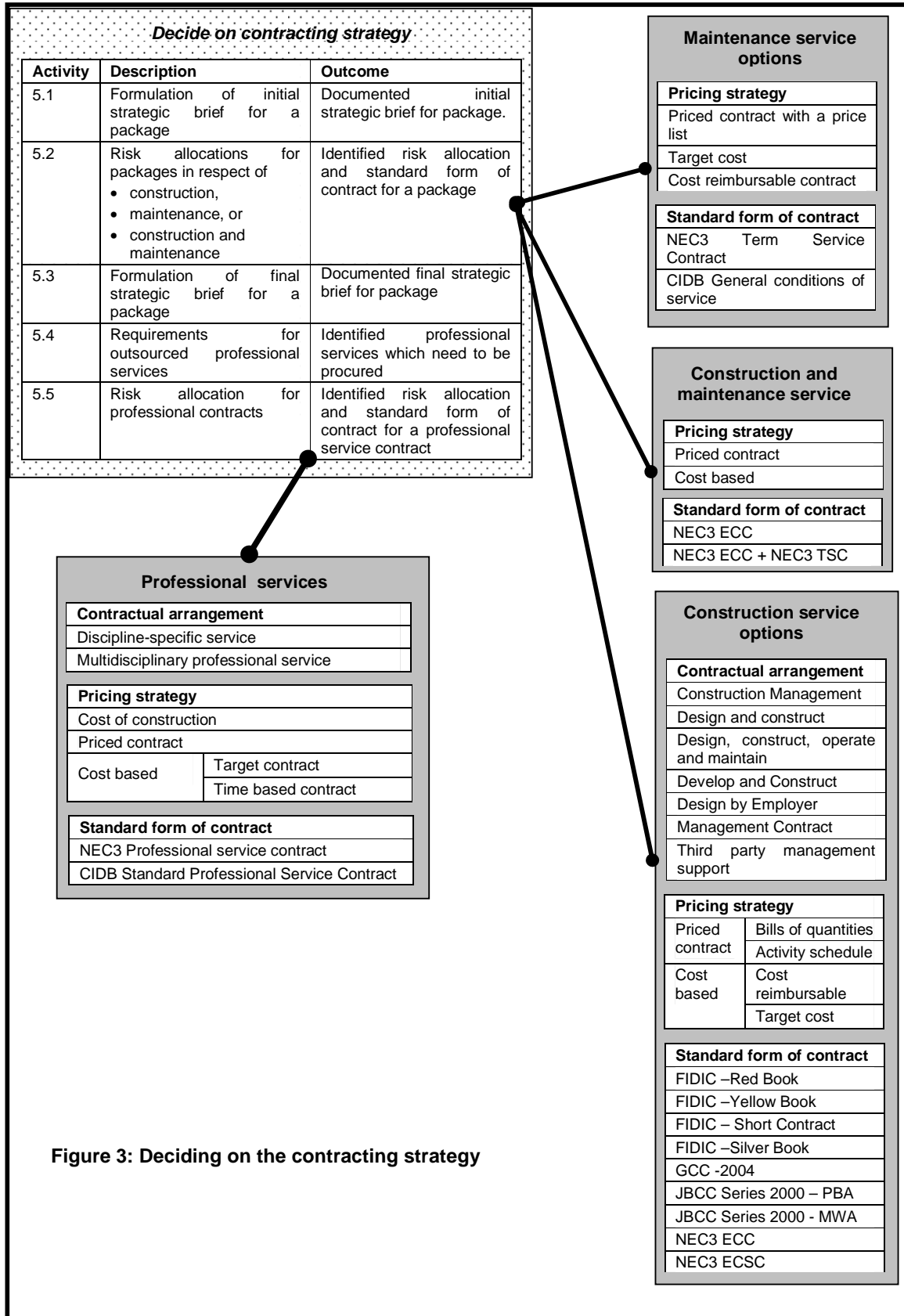


Figure 3: Deciding on the contracting strategy

Note: In some community based programme or development programmes involving fledgling contractors, embryonic enterprises or aspirant entrepreneurs may require third party support in order to complete their contracts satisfactorily. Such support may take the form of construction management or materials management support. (See CIDB *Specification for social and economic deliverables in construction works contracts*.)

- 2) Prioritise options then eliminate some contractual and pricing options that place demands on scarce resources and select options which best fit market analysis and primary and secondary procurement objectives.

Note: The abovementioned factors can compete against each other (see Figure 3). For this reason it might be necessary to weight each factor, score each factor in relation to each contractual arrangement (i.e. design by employer, design and construct, develop and construct, construction management and management contractor) and look at the weighted totals in order to arrive at the prioritised option.

- 3) Identify suitable forms of contract from Figure 5 and Table 10 for the selected option and decide on the most suitable option for the package.

Note: Where several forms of contract satisfy requirements consider the need for the following in the final selection of a form of contract:

- back to back subcontracts (eliminate FIDIC and GCC 2004 forms of contract if needed (see Table 10))
- changes to the price arising from employer's risk are assessed as the cost to the contractor without reference to tendered rates and prices, the philosophy being that the Contractor should not be in a better or worse position than before the change (use only NEC contracts)
- the proactive management of risks and the assessment of events leading to changes in the time for delivery or the cost of works to be assessed soon after the event triggering such changes occurs (use only NEC contracts)
- incentivising the whole supply team to perform better (use only NEC contracts)
- organisation's familiarity with a particular form of contract (on one-off projects use the form of contract that is most familiar to the organisation and their professional team)

Output: Identified risk allocation and standard form of contract for a package

Construction and maintenance service options

- Action:*
- 1) Identify suitable forms of contract for the package, based on the decision criteria contained in Table 11.
 - 2) Identify suitable pricing strategies for the selected forms of contract based on Tables 9 and 12.

Output: Identified risk allocation and standard form of contract for a package

Maintenance service options

- Action:* Adopt:
- 1) the CIDB General conditions of service if the contract is for the delivery of goods on or before the date stated in an order without any incidental work or services;
or
 - 2) the NEC3 Term Services Contract and identify a pricing strategy using Table 12.

Output: Identified risk allocation and standard form of contract for a package

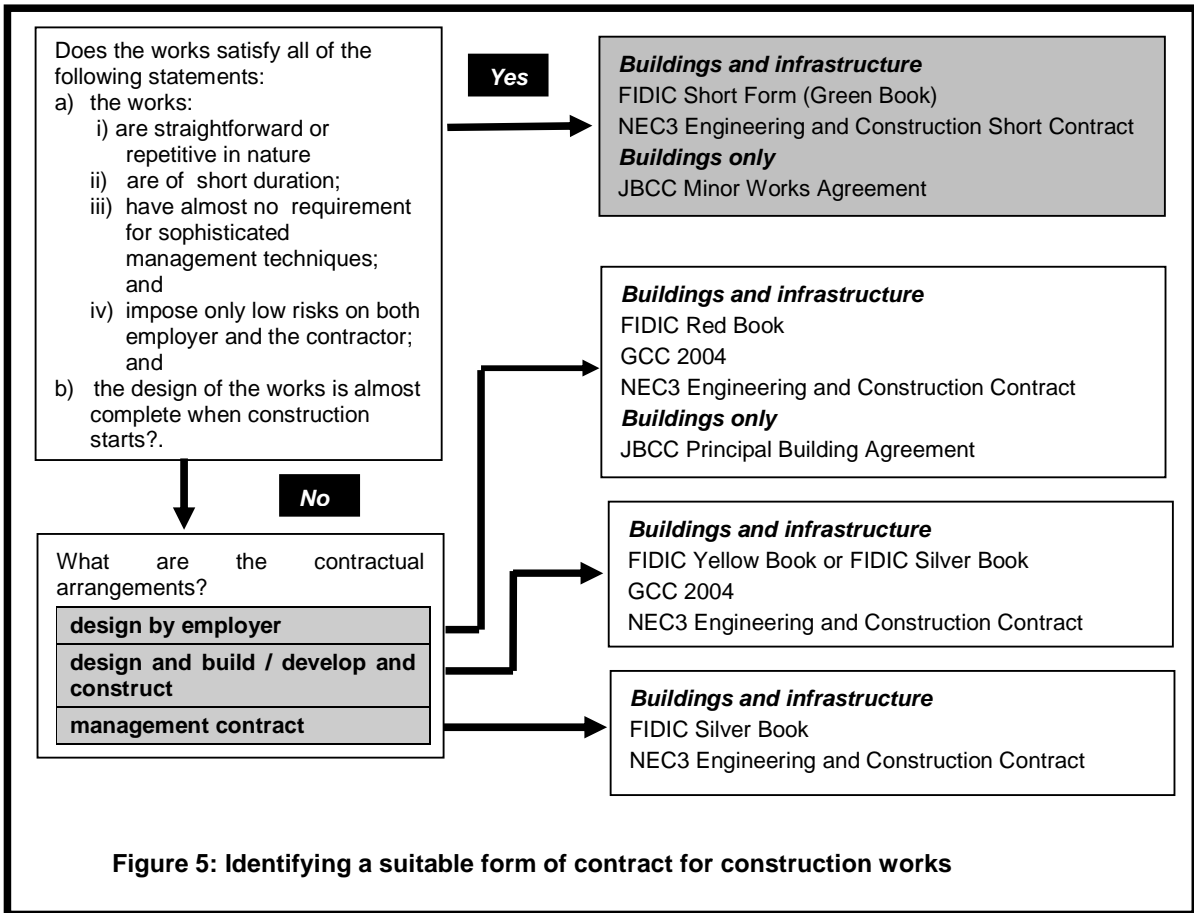
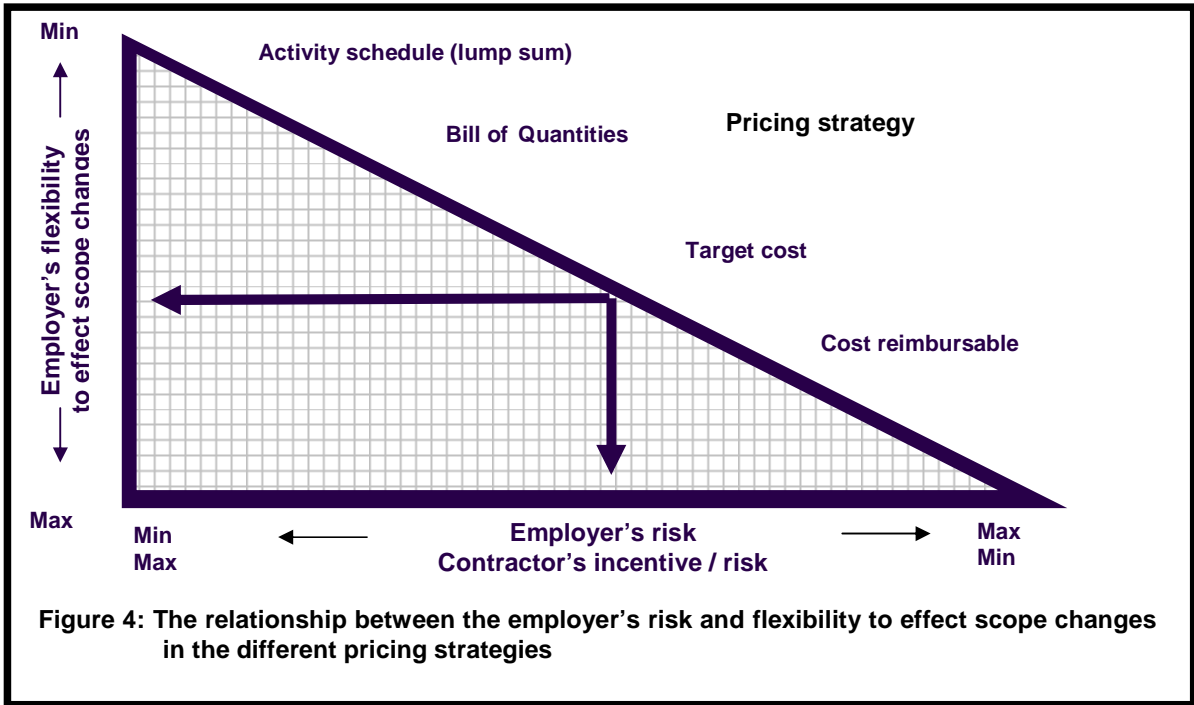


Table 8: Selecting appropriate contractual arrangements for construction works contracts

Consideration	Options				
	Design by employer	Develop and construct	Design and construct	Construction management / third party management support	Management contractor
Description	Contract under which a contractor undertakes only construction on the basis of full designs issued by the employer (Design is a separate function to construction)	Contract based on a scheme design prepared by the client under which a contractor produces drawings and constructs it	Contract in which a contractor designs a project based on a brief provided by the client and constructs it	Contract under which a contractor provides consultation during the design stage and is responsible for planning and managing all post-contract activities for contractors appointed by the employer	Contract under which a contractor provides consultation during the design stage and is responsible for planning and managing all post-contract activities and for the performance of the whole of the contract
Appropriate usage	Where: <ul style="list-style-type: none"> the client wishes to make significant technical inputs into the design process and design details; the client requires flexibility in the development of the design the risks are to be balanced between the parties; or reasonable certainty in cost and time is required before a commitment to build is made. Suitable for moderately complex projects	Where the employer requires: <ul style="list-style-type: none"> integrated detailed design and construction and single point accountability from Stage 3 onwards; the contractor is at risk for the development of only the detailed design; or reasonable certainty in cost and time before a commitment to build is made. Suitable for simple and moderately complex projects	Where the employer requires <ul style="list-style-type: none"> integrated design and construction and single point accountability from Stage 2 onwards; or that most risks lie with the contractor in return for price certainty the cost and completion date is almost guaranteed when a commitment to build is made. Suitable for simple and moderately complex projects, particularly where the client has limited technical capability.	Where it is desirable to <ul style="list-style-type: none"> have direct contracts with specialist trade contractors or small contractors. and manage the interfaces between interrelated packages within a project Construction management Suitable for projects where a number of trade contractors are appointed Third party management Suitable for projects where the employer wishes to ensure that smaller local contractors are developed or are provided with some materials or equipment	Where: <ul style="list-style-type: none"> the employer has limited capability or capacity to advance the work beyond a strategic brief. the employer retains most of the risks Suitable for sophisticated projects, particularly where the client has limited technical capability.
Pre-requisites	Suitable client accepted Stage 4 production information is available to be incorporated into the scope of work for the contract. Employer has the capability and capacity to take decisions during the design process and to accept or reject end of stage deliverables.	A suitable client accepted design development report setting out the Stage 3 integrated developed design for the project is available to develop the scope of work for the contract.	A suitable client accepted concept report setting out the Stage 2 integrated concept for the project is available to develop the scope of work for the contract	Construction management The interfaces between interrelated packages need to be managed. Third party management There is a significant risk that small contractors may fail to timeously and satisfactorily complete their contract.	A suitable client accepted strategic brief setting out the project Stage 1 definition information is available to develop the scope of work for the contract

Table 9: Selecting a pricing strategy for construction works contracts

Consideration	Options			
	Priced contract		Cost based contract	
	Activity schedule (lump sum)	Bill of quantities	Cost reimbursable	Target cost
Description	The contractor undertakes to break the scope of work down into activities and price each activity as a lump sum, which he is paid on completion of the activity. The total of the activity prices is the lump sum price for the contract work.	The bill of quantities lists the items of work and the quantities and rates associated with each item to allow contractors to be paid, at regular intervals, an amount equal to the agreed rate for the work multiplied by the quantity of work completed	Contract in which the contractor is paid for his actual expenditure plus a percentage or fee	Cost reimbursable contract in which a target cost is estimated and on completion of the works the difference between the target cost and the actual cost is apportioned between the employer and contractor on an agreed basis
Appropriate usage	<p>Where</p> <ul style="list-style-type: none"> the price risk needs to be transferred to the contractor; greater certainty of final project cost is required possibly at a cost premium; the increased administration required for the effective management of cost-based contracts is not warranted. <p>On contracts which will attract a contractor who is unlikely to have or put in place the management systems that are capable of handling a cost-based contract.</p>	<p>Where a clear, unambiguous scope of work exists, which is complete in all respects and as such can be priced with certainty.</p> <p>Changes to requirements are not anticipated</p>	<p>Where an emergency exists and there is insufficient time to scope the works prior to the awarding of a contract to a contractor. (An emergency is where there is a risk of human injury or death; human suffering or deprivation of human rights; serious damage to property or financial loss; injury, suffering or death to livestock or other animals; serious environmental damage or degradation; or interruption of essential services)</p> <p>Where the scope of work (works and constraints under which the contractor is to operate) cannot be priced ahead of the works.</p> <p>Where the employer cannot transfer the project risk to the contractor or the risk pricing by a contractor is prohibitive.</p> <p>Where the contract is likely to be disrupted by uncontrollable events.</p>	<p>Where</p> <ul style="list-style-type: none"> the employer <ul style="list-style-type: none"> needs to know where the money is being spent, wishes to reward strong contractor performance; wants to share financial risk with the contractor; and wants to promote collaboration or a culture whereby both parties have a direct interest in decisions that are made regarding the cost and timing of the contract an early contractor involvement in the project is required to make inputs into the design process framework agreements are entered into in terms of which competition amongst framework contractors is not reopened to obtain priced contracts
Pre-requisites	The design of the works is sufficiently progressed to the extent that the scope of work (works and constraints under which the contractor is to operate) can be robustly defined and pricing is viable	The design of the works is sufficiently progressed to the extent that the scope of work (works and constraints under which the contractor is to operate) can be accurately measured in terms of a standard system of measurement	Internal or external capability and capacity exists or can be put in place to control and manage the employer's commercial risks and audit contractor's cost.	

Table 10: Selecting an appropriate form of contract for construction works contracts

Consideration	NEC3 Engineering and Construction Contract (ECC)	NEC3 Engineering and Construction Short Contract. (ECSC)	FIDIC Conditions of Contract for Construction and Building and Engineering Works Designed by the Employer (Red Book)	FIDIC Conditions of Contract for Plant and Design (Yellow Book)	FIDIC Conditions of contract for EPC Turnkey Projects (Silver Book)	FIDIC Short Form of Contract General Conditions (Short Form)	JBCC Principal Building Agreement	JBCC Minor Works Agreement	GCC 2004
Contract strategy									
Design by Employer	√	√	√	x	x	√	√	√	√
Management Contract	√	x	x	x	√	x	x	x	x
Design and Build	√	√	x	√	√	√	x	x	Not well developed
Develop and Construct	√	√	x	√	√	√	x	x	
Pricing strategy									
Activity schedule ¹	√ ²	√ ²	x	√	√	No standard provisions	√	√	√
Bill of quantities	√	√	√	Not fully developed	x		√	√	√
Cost reimbursable	√	x	x	x	x		x	x	x
Target cost	√	x	x	x	x		x	x	x
Back-to-back subcontracts	Two standard subcontracts available (Engineering and Construction Subcontract (ECS) and the Engineering and Construction Short Subcontract ECSS)). ECC2 and ECSC can also be used as subcontract documents.		None available				Nominated selected subcontract agreement available.	/	None available

¹ An activity schedule with a single activity is in effect a lump sum contract.

² The financial effect of compensation events including scope changes is cost based as distinct from tendered rate based)

Table 11: Selecting appropriate forms of contract for design, construct and maintain contracts

Option	Decision criteria
NEC3 Engineering and Construction Contract	Use if the period of operation is relatively short, say one year.
Design and construction: NEC3 Engineering and Construction Contract Maintenance: the NEC3 Term Service Contract for the work	Use separate contracts if the period for operation or maintenance is longer than say one year.

Table 12: Selecting a pricing strategy for a term service contract

Consideration	Priced contract Priced contract with price list	Cost based contract	
		Cost reimbursable	Target cost
Description	The price list contains the lump sum prices for each required service and quantities and rates for repeated services to enable contractors to be paid for services provided.	Contract in which the contractor is paid for his actual expenditure plus a percentage or fee	Cost reimbursable contract in which a preliminary target cost is estimated and on completion of the services the difference between the target cost and the actual cost is apportioned between the employer and contractor on an agreed basis
Appropriate usage	<p>Where</p> <ul style="list-style-type: none"> the price risk needs to be transferred to the contractor; greater certainty of outturn cost is required; the increased administration required for the effective management of cost-based contracts is not warranted. <p>On contracts which will attract a contractor who is unlikely to have or put in place the management systems that are capable of handling a cost-based contract.</p> <p>Where services can be scoped with reasonable certainty.</p>	<p>Where an emergency exists and there is insufficient time to scope the works prior to the awarding of a contract to a contractor. (An emergency is where there is a risk of human injury or death; human suffering or deprivation of human rights; serious damage to property or financial loss; injury, suffering or death to livestock or other animals; serious environmental damage or degradation; or interruption of essential services)</p> <p>Where the scope of work (works and constraints under which the contractor is to operate) cannot be priced ahead of the services</p> <p>Where the employer cannot transfer the project risk to the contractor or the risk pricing by a contractor is prohibitive.</p> <p>Where the contract is likely to be disrupted by uncontrollable events.</p>	<p>Where</p> <ul style="list-style-type: none"> the employer <ul style="list-style-type: none"> needs to know where the money is being spent, wishes to reward strong contractor performance ; wants to share financial risk with the contractor; and wants to promote collaboration or a culture whereby both parties have a direct interest in decisions that are made regarding the cost and timing for the contract framework agreements are entered into in terms of which competition amongst framework contractors is not reopened to obtain priced contracts
Pre-requisites	The design of the works is sufficiently progressed to the extent that the scope of work (works and constraints under which the contractor is to operate) can be robustly defined and pricing is viable	Internal or external capability and capacity is put in place to control and manage the employer's commercial risks and audit contractor's cost.	

Step 5.3 Formulation of final strategic brief for a package

Action: Formulate final strategic brief (see stage 1: preparation in Table 1 in relation to construction projects) including contracting strategy in order to fully define the package and the strategic actions to take the project forward.

Output: Documented final strategic brief for package

Step 5.4 Requirements for outsourced professional services

- Action:*
- 1) Identify the need for professional services of the type listed in Table 13 in relation to each package and the contracting strategy selected for that package.
 - 2) Establish whether or not there are sufficient internal resources with the required capabilities and capacity to provide the required service.

Output: Identified professional services which need to be procured

Table 13: Types of commonly required professional service

Service	Description of service	Decision criteria
Cost consulting	Establish the project budget, develop and maintain a cost plan and monitor and assist the project team in the development of the brief in compliance with the budget Audit contractor's cost .	Required on all contracting strategies except the design by employer where the contractor is paid for the construction works based on a bill of quantities
Contract administration	Administer the contract in accordance with the requirements of the selected contract i.e. as: <ul style="list-style-type: none"> • employer's representative - FIDIC (Green and Silver Book) and NEC3 Engineering and Construction Short Contract • engineer – FIDIC (Red and Yellow Book) and GCC 2004project manager – NEC3 Engineering and construction contract • principal agent – JBCC series 2000 • service manager – NEC3 Term Service Contract 	Required on all contracting strategies Note: Role performed by engineer in FIDIC and GCC contracts, agent in JBCC Series 2000 Agreements and supervisor in NEC3 Engineering and Construction Contract. Frequently the designer provides this service.
Construction monitoring	Monitor that design assumptions are valid, the design is being correctly interpreted and the work is being executed generally in accordance with the designs, appropriate construction techniques and good practice.	Not required where designer provides this role
Construction management	Manage the interfaces between trade contractors.	Required where employer adopts the construction management strategy
Design	Establish and develop the architectural / relevant engineering (civil, structural, electrical, mechanical, fire, etc) / building services for project, develop architectural / engineering / building service aspects of the brief and assemble and archive record information. Where the contractor is responsible for design, monitor that the design progresses in accordance with the requirements of the contract.	Required to prepare concept report

Service	Description of service	Decision criteria
Design lead	Set design standards for the project, lead presentations of the design to the client and other parties, co-ordinate and integrate the design prepared by the project team, co-ordinate advice on design-related issues and advise on the design, and lead and co-ordinate submissions to statutory authorities.	Required where the design involves a number of disciplines e.g. on a building project where architectural, structural, civil, electrical, mechanical, fire safety and acoustical design services can be required.
Procurement documentation	Develop tender and contract documents for package including: <ul style="list-style-type: none"> - the formulation of the contract data for the selected form of contract and contracting strategy - pricing assumptions and - scope of work 	Specialist may be required to develop documentation for those contracting strategies for those other than the design by employer contracting strategy
Programme management	Manage a programme of projects with common objectives	Required where programme of projects option is selected.
Project management	Manage projects, in accordance with the project stages set out in Table 1 where relevant, in a manner that enables the employer to achieve its objectives and in such a manner that: <ul style="list-style-type: none"> - all projects are developed and managed in terms of a common procedural approach and integrated with the employer's administrative processes; - the various elements of the project are properly co-ordinated; - the project includes all the work required, and only the work required, to complete the project successfully; - the timely completion of the project is facilitated; - the project is completed as far as is reasonably possible, within the budget that is agreed from time to time with the employer; - the project satisfies the needs for which it was undertaken; - effective use of the people involved with the project is made; - timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information occurs; and - the systematic identification, analysis, and response to project risk occurs. 	Not necessary for: <ul style="list-style-type: none"> • small projects • projects involving a single design discipline. • design and construct contracts with early contractor involvement or management contracts.
Quantity surveying	Establish the project budget, develop and maintain a cost plan and monitor and assist the project team in the development of the brief in compliance with the budget Develop bills or quantities.	Required where a design by employer contracting strategy is selected and the contractor is paid for the construction works based on a bill of quantities
Mentorship	Develop through the advice, counselling, experience and inputs of the mentor, an emerging contractor so that he or she may in time improve his or her CIDB contractor grading designation	Required where contractors or subcontractors in CIDB contractor grading designations 2 to 6 require such support to progress to a higher grade
Occupational health and safety services	Monitor compliance with occupational health and safety requirements, conduct random site audits and issue, where necessary, improvement notifications, contravention notices and prohibition notices	Require on larger contracts or on high risk contracts e.g. those involving working below ground or at height

Service	Description of service	Decision criteria
Third party management support	<p><i>Construction management services</i> Advise, assist and train contractors in the performance of contracts as main contractors and ensure that work progresses satisfactorily.</p> <p><i>Materials management support</i> Procure, store and issue materials for incorporation into the works either to the construction manager, who will deliver such materials to the place of work or directly to the supported contractor.</p> <p>Establish a stores facility which is capable, at short notice, of supplying all materials required for the project</p>	Required to manage the employer's risks relating to the failure of fledgling contractors, embryonic enterprises or aspirant entrepreneurs from failing to complete a contract satisfactorily.

Step 5.5 Risk allocation for professional contracts

- Action:*
- 1) Determine if discipline specific or multidisciplinary professional services are to be procured, based on the decision criteria contained in Table 14.
 - 2) Identify a suitable pricing strategy for professional service contracts, based on the decision criteria contained in Table 15.
 - 3) Select either the NEC3 Professional Service Contract or the CIDB Standard Professional Services Contract by considering the following needs:
 - require a target cost contract (use NEC3)
 - require consultants to provide deliverables as opposed to completing the services by a specified date (use NEC3)
 - anticipate many scope changes in a priced contract (use NEC3)
 - regular forecasting of time charges and updating of programme (use NEC3)
 - services provided on a task order basis / framework contract (use NEC3 – term service option)

Output: Identified risk allocation and standard form of contract for a professional service contract

Table 14 Types of professional service contracts

Contract type	Decision criteria
Discipline specific	<p>Use where:</p> <ul style="list-style-type: none"> • specialist services are required which are not interlinked with and dependent upon other services which are provided • design involves a single discipline • the nature of the service is such that it is essential for a discipline specific designer to be separately appointed e.g. an architect through a design competition, an engineer with very specialised capabilities in a particular field, etc. • there is sufficient capacity (internal or procured) to effectively manage the professional team
Multidiscipline	Use where decisions criteria for discipline specific are not satisfied

Table 15: Selecting a pricing strategy for professional service contracts

Consideration	Options			
	Priced contract	Cost of construction	Cost based contract	
			Cost reimbursable	Target cost
Description	The consultant undertakes to break the scope of work down into activities and price each activity as a lump sum, which he is paid on completion of the activity. The total of the activity prices is the lump sum price for the contract work.	The consultant's fee is based on a percentage of the cost of the construction works.	Contract in which the consultant is paid for his time expended at agreed rates	Cost reimbursable contract in which a target cost is estimated and on completion of the service the difference between the target cost and the actual cost is apportioned between the employer and contractor on an agreed basis
Appropriate usage	<p>Where</p> <ul style="list-style-type: none"> the price risk needs to be transferred to the consultant greater certainty of outturn cost is required <p>Where a clear, unambiguous scope of work exists, which is complete in all respects and as such can be priced with certainty.</p>	<p>Where an early consultant involvement in the project is required to make inputs into the scoping of the project.</p> <p>Note:</p> <ol style="list-style-type: none"> This strategy implies that the cost of the consultant's services is proportional to the cost of constructing the works. The cost of construction is, whoever, largely a function of the market and bears no relation to the cost of professional services. With this option, the Consultant's has no incentive to produce an economical design or other service. The Consultant has in fact a perverse incentive to make the cost of the works as high as possible. 	<p>Where the scope of work cannot be priced ahead of the service.</p> <p>Where the employer cannot transfer the risk to the consultant or the risk pricing by a consultant is prohibitive.</p> <p>Where the contract is likely to be disrupted by uncontrollable events.</p>	<p>Where</p> <ul style="list-style-type: none"> the employer <ul style="list-style-type: none"> wishes to control time related costs, wishes to reward strong consultant performance ; wants to share financial risk with the consultant; and wants to promote collaboration or a culture whereby both parties have a direct interest in decisions that are made regarding the cost and timing for the contract an early consultant involvement in the project is required to make inputs into the scoping of the project framework agreements are entered into in terms of which competition amongst framework contractors is not reopened to obtain priced contracts
Pre-requisites	The scope of work is robustly defined and pricing is viable	There are clear and definite advantages to using this type of procedure over a priced or target cost contract.	Systems are or can be put in place to audit cost to provide the client with the confidence that the costs incurred are in accordance with the contract.	

6 Procurement arrangements

The final stage in developing a procurement strategy is to decide on the procurement arrangements, using the process outlined in Figure 6 and described below.

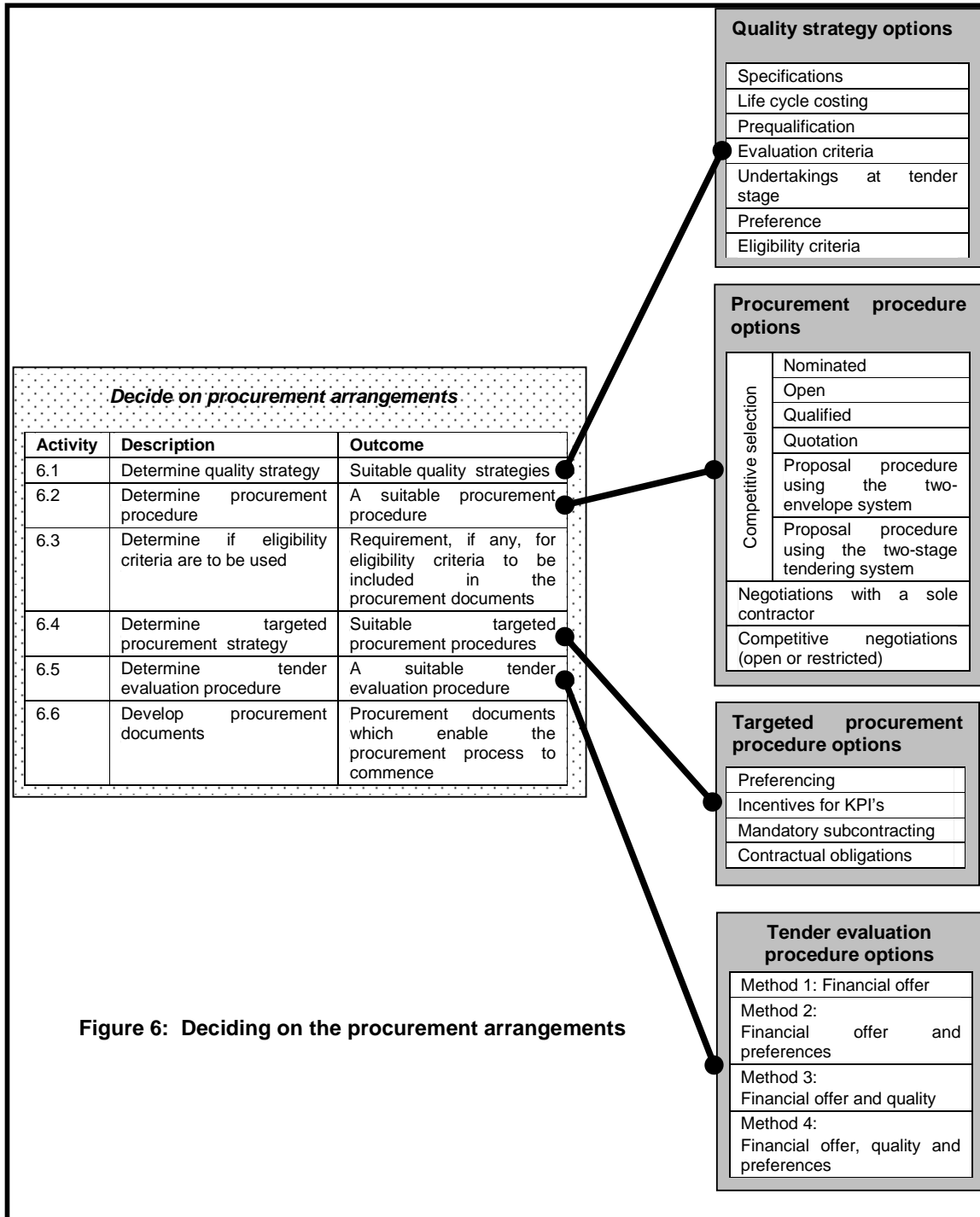
Step 6.1 Determine quality strategy

Action: Determine the strategies to ensure quality in the procurement in addition to the full and unambiguous specification of requirements in the scope of work, based on the decision criteria contained in Table 16

Outcome: Suitable quality strategies

Table 16: Selecting suitable quality strategies

Mechanism	Description	Decision criteria
Life cycle costing	Incorporate aspects of life cycle costing in the evaluation of tender offers (Link to evaluation Methods 3 and 4 in Table 21).	Use if solution(s) to performance specifications offered by tenderers have an impact upon the life cycle of the project e.g. the solution offered impacts upon issues such as reliability, durability, running costs, after-sales service and technical assistance etc.
Prequalification	Invite tender offers only from prequalified tenderers (Link to qualified procedure in Table 18)	Use where it is essential to ensure that only those tenderers who are capable of providing a quality service are invited to submit tenders
Eligibility criteria	Evaluate only submissions and tenders received from respondents and tenderers, respectively, who satisfy eligibility criteria framed around quality.	Use where the introduction of quality criteria in the eligibility criteria needs to be used to screen respondents in calls for expressions of interest or tenderers to ensure that submissions are only evaluated from those who are able to or are likely to satisfy the quality requirements for the contract
Undertakings at tender stage	Require tenderers to submit draft quality management plans with tender	Use where it is desirable and appropriate to have the opportunity to make inputs into quality management plans at tender stage and to finalise such plans before awarding the contract.
Preference	Award a preference for attainment of quality standards (Link to evaluation Methods 2 and 4 in Table 21).	Use where it is desirable but not essential to meet stated quality criteria e.g. be ISO 9000 certified.
Evaluation criteria	Incorporate objective and quantifiable aspects of quality in the evaluation of the financial offer (Link to evaluation Methods 3 and 4 in Table 21).	Use if criteria such as the following have a profound or significant impact on the tenderer's offer <ul style="list-style-type: none"> • technical merit; • response to (ability to relate to) the proposed scope of work/project design; • aesthetic and functional characteristics; • safety and environmental characteristics; • quality control practices and procedures which ensure compliance with stated employer's requirements; • organization, logistics and support resources relevant to the scope of work • qualifications and demonstrated experience of the key staff (assigned personnel) in relation to the scope of work; • demonstrated experience of tendering entity with respect to specific aspects of the project / comparable projects



Step 6.2 Determine procurement procedure

Action:

- 1) Select one of the basic procurement procedures based on the decision criteria or pre-requisites contained in Table 17, subject to the selected procedure not being in conflict with the employer's procurement policy.
- 2) If a competitive selection procedure is selected, select one or more suitable option based on the decision criteria contained in Table 18, subject to the selected options not being in conflict with the employer's procurement policy.

- 3) If a competitive negotiation procedure is selected, select one of the options based on the decision criteria contained in Table 19, subject to the selected option not being in conflict with the employer's procurement policy.

Output: A suitable procurement procedure.

Table 17: Selecting a basic procurement procedure

Procedure		Description	Decision criteria	Pre-requisites
1	Negotiation procedure	A tender offer is solicited from a single tenderer.	<p>The procurement satisfies one or more of the following criteria:</p> <ul style="list-style-type: none"> • only one contractor is identified as possessing the necessary experience and qualifications or product to provide the required service or goods; • the required services or construction works cannot technically or economically be separated from another contract previously performed by a specific contractor; • the service or construction works being procured are largely identical to works previously executed by that contractor and it is not in the public interest to solicit other tenders; or • the services being procured have a very low ceiling value and it is not cost effective to engage in a competitive selection process 	In addition to satisfying the decision criteria, the reason for following this procedure is in accordance with the employer's procurement policy
2	Competitive selection	The contract is usually awarded to the contractor who submits the lowest financial offer or obtains the highest number of tender evaluation points.	The criteria for the negotiation procedure or the competitive negotiation procedures do not apply.	None
3#	Competitive negotiations	The number of tenderers competing for the contract are reduced through a series of negotiations until the remaining tenderers are invited to submit final offers.	<p>The procurement satisfies one or more of the following criteria:</p> <ul style="list-style-type: none"> • it is not feasible to formulate detailed specifications for the work or to identify the characteristics of construction works to obtain the most satisfactory solution to procurement needs, • there are various possible means of satisfying procurement needs, or • the technical character of the construction works or nature of the services warrants the use of competitive negotiations to realize the most satisfactory solution to procurement needs; and • and there is potential for obtaining better value for money through negotiations than through a competitive selection procedure. 	The procedure is permitted in terms of the employer's procurement policy and the capability exists or can be put in place to execute the procedure

See CIDB inform Practice Note # 12, *The Competitive Negotiations Procedure*

Table 18: Selecting a suitable option for a competitive selection procedure

Option		Description	Usage	Pre-requisite
2A	Nominated procedure	Tenderers that satisfy prescribed criteria are entered into an electronic database. Tenderers are invited to submit tender offers based on search criteria and, if relevant, their position on the database. Tenderers are repositioned on the database upon appointment or upon submission of a tender offer.	The procurement involves high volumes of work which is repetitive and routine in nature and has an estimated contract value that is less than R0,5 million in the case of services and construction works and R1,5 m in the case of professional services.	The employer has in place: <ul style="list-style-type: none"> • policy, operational procedures and appropriate software to effectively and efficiently operate the operation of an electronic database; and • the necessary resources to evaluate the capability of applicants to the data base and to maintain the data base and add new applicants that satisfy entry criteria regular intervals.
2B	Open procedure	Tenderers may submit tender offers in response to an advertisement by the organization to do so.	Any procurement except where the cost of advertising or the evaluation of a large number of tender submissions is disproportionate to the value of the work.	The procedure is cost effective
2C	Qualified procedure	A call for expressions of interest is advertised and thereafter only those tenderers who have expressed interest, satisfy objective criteria and who are selected to submit tender offers, are invited to do so.	The procurement is such that: <ul style="list-style-type: none"> • it is essential that tenders are only received and evaluated from tenderers who have the necessary capabilities and capacity to perform the contract and it is undesirable to rely on eligibility criteria to “prequalify” tenderers; or • the inputs required by tenderers are such that the shortlisting of 4 or 5 tenderers is essential to obtain comprehensive submissions or to make the submission of tenders attractive to potential tenderers; or • it is essential for practical reasons that only a manageable number of tender submissions are evaluated 	The capability and capacity exists or can be put in place to execute the procedure
2D	Quotation procedure	Tender offers are solicited from not less than three tenderers in any manner the organization chooses, subject to the procedures being fair, equitable, transparent, competitive and cost-effective.	Procurement involving low contract values	The estimated contract value is less than the value prescribed in the employer’s procurement policy or, if applicable, the limit prescribed by National Treasury.

2E	Proposal procedure using the two-envelope system	Tenderers submit technical and financial proposals in two envelopes. The financial proposal is only opened should the technical proposal be found to attain a minimum threshold score.	The procurement is by nature such that it requires tenderers to develop technical proposals which are best evaluated without sight of the financial proposal.	The capability and capacity exists or can be put in place to execute the procedure
2F	Proposal procedure using the two-stage system	Non-financial proposals are called for. Tender offers are then invited from those tenderers that submit acceptable proposals based on revised procurement documents. Alternatively, a contract is negotiated with the tenderer scoring the highest number of evaluation points.	Procurement : <ul style="list-style-type: none"> • requires tenderers to develop proposals against budgets; or • requires the scope of work to be developed with a group of tenderers; or • requires designers to compete against each other for the opportunity to design a structure (design competition) 	The capability and capacity exists or can be put in place to execute the procedure

Table 19: Selecting a suitable option for a competitive negotiation selection procedure

Option	Description	Decision criteria
3A	Restricted competitive negotiations	A call for expressions of interest is advertised and thereafter only those tenderers who have expressed interest, satisfy objective criteria and who are selected to submit tender offers, are invited to do so. The employer evaluates the offers and determines who may enter into competitive negotiations.
		There is a need to limit the number of tenderers participating in the process from the outset for the following reasons: <ul style="list-style-type: none"> a) a contract requires a high degree of specialized input or requires skills and expertise that is not readily available; b) a contract requires exceptional management skills or quality; c) a contract requires significant tenderer inputs in order to respond appropriately to requirements so that a financial offer can be determined; or d) the time and cost required to examine and evaluate a large number of tender offers would be disproportionate to the procurement.
3B	Open competitive negotiations	Tenderers may submit tender offers in response to an advertisement by the organization to do so. The employer evaluates the offers and determines who may enter into competitive negotiations.
		There is no justifiable need to limit the number of tenderers participating in the process from the outset.

Step 6.3 Determine if eligibility criteria are to be used.

Action: Determine if respondents or tenderers need to satisfy eligibility criteria relating to their capabilities and capacities in order for their expressions of interest or tenders to be evaluated.

Note: 1) Eligibility criteria are a form of prequalification. They are used to ensure that only those respondents or tenderers who are likely to be able to perform the contract have their submissions evaluated. Eligibility criteria need to be framed such that they facilitate the acceptance of the tender offer by the employer (see clause F.3.13 (Acceptance of the tender offer) in the CIDB Standard for Uniformity in Construction Procurement.)

- 2) Eligibility criteria are used to activate the CIDB register of contractors. Eligibility criteria are therefore required whenever the CIDB register of contractors applies to a call for an expression of interest or an invitation to tender. (see CIDB Inform Practice Note #3, Applying the register of contractors in construction works contracts)

Outcome: Requirement, if any, for eligibility criteria to be included in the procurement documents

Step 6.4 Determine targeted procurement strategy

Action: Select one or more of the targeted procurement procedures based on the decision criteria contained in Table 20 to support secondary procurement objectives.

Outcome: Suitable targeted procurement procedures

Table 20: Selecting suitable targeted procurement procedures

Method	Description	Decision criteria
Preferencing	Give a weighting to social and economic policy objectives along with the usual commercial criteria, such as quality, which are scored at the short listing stage or the admission to a data base.	Use to improve the probability that the target group or a social or economic policy are shortlisted or admitted to a data base. (Not required where the target group is likely to be adequately represented on the shortlist or data base.)
	Give a weighting to social and economic policy objectives along with price and where relevant, quality, during the evaluation of tenders.	Use on all contracts above R30 000 as required by the Preferential Procurement Policy Framework Act.
Incentives for KPI's	Incentive payments are made to contractors should they achieve a specified target (key performance indicator) associated with a social or economic goal in the performance of a contract.	Use on larger contracts where the client is prepared to provide a financial incentive to attain stretch targets.
Mandatory subcontracting	Require contractors to invite competitive tenders from targeted enterprises for specified portions of the works in terms of a specified procedure and specific forms of subcontract. Upon the award of the contract, the subcontractor becomes a domestic subcontractor.	Use where contracts are sufficiently large and the nature of the work lends itself to do so. Do not use where subcontracting requirements make the work unattractive to main contractors.
Contractual obligations	Make policy objectives a contractual condition, e.g. <ul style="list-style-type: none"> • a fixed percentage of the work is required to be subcontracted out to enterprises that have prescribed characteristics, or a joint venture shall be entered into. • Parts of the works are to be executed using labour intensive methods 	Use with caution as, depending upon the nature and extent of the conditions to be applied to a contract, it may at one end of the spectrum be regarded as a form of discrimination and at the other end, a reasonable measure to promote equality. Use only where the making of policy objectives a contractual condition don't compromise the constitutional imperative that the system be fair, equitable, transparent, competitive and cost effective.

Step 6.5 Determine tender evaluation procedure

Action: Identify the appropriate tender evaluation procedure based on the pre-requisites contained in Table 21

Note: Eligibility criteria in the form of attaining a minimum quality score can provide a simple and cost-effective alternative to the scoring of some aspects of quality in tender submissions. In this procedure, the scoring of quality serves merely to establish that the tenderer is capable of

providing the service and to reject the tender submissions of those who fail to attain the threshold score. Thereafter the tender offers can be evaluated on the basis of financial offer or financial offer and preference.

Outcome: A suitable tender evaluation procedure

Table 21: Selecting a tender evaluation method

Method	Pre-requisites
Method 1: Financial offer	Where the tasks/activities are of a straightforward nature in terms of which inputs are relatively well known and outputs can be readily defined and the estimated value of the contract is equal to or below the threshold applicable to preferencing i.e. R30 000
Method 2: Financial offer and preferences	As for Method 1 but where the estimated contract value is above the threshold applicable to preferencing i.e. R30 000 and above.
Method 3: Financial offer and quality	<p>Where it is justifiable in terms of procurement outcomes or it is necessary in order to determine the most economically advantageous offer to evaluate objective and quantifiable criteria which relate directly to what is to be procured e.g. where criteria such as the following need to be evaluated:</p> <ul style="list-style-type: none"> • technical merit; • response to (ability to relate to) the proposed scope of work/project design; • aesthetic and functional characteristics; • safety and environmental characteristics; • quality control practices and procedures which ensure compliance with stated employer's requirements; • reliability; • durability; • organization, logistics and support resources relevant to the scope of work • qualifications and demonstrated experience of the key staff (assigned personnel) in relation to the scope of work; • demonstrated experience of tendering entity with respect to specific aspects of the project / comparable projects; • running costs; • after-sales service and technical assistance; • delivery date; and • delivery period or period of completion <p>The procedure shall only be used where at least three persons who are fully conversant with the technical aspects of the procurement are available to undertake the quality evaluations (See clause 4.3 of the CIDB Standard for Uniformity in Construction Procurement)</p>
Method 4: Financial offer, quality and preferences	As for Method 3 except that preferences are applied.

6.6 Develop procurement documents

Action: Develop procurement documents which reflect the decisions taken in developing the procurement strategy.

- Note:*
- 1) This action is achieved by setting options within the tender data and contract data and developing returnable schedules, pricing data and the scope of work to reflect decisions that are taken.
 - 2) The CIDB Specification for social and economic deliverables in construction works contracts facilitates the specification of social and economic deliverables in construction contracts.

Outcome: Procurement documents which enable the procurement process to commence.