

CESA BEST PRACTICE WEBINARS

Procurement of
Consulting Engineering
Services

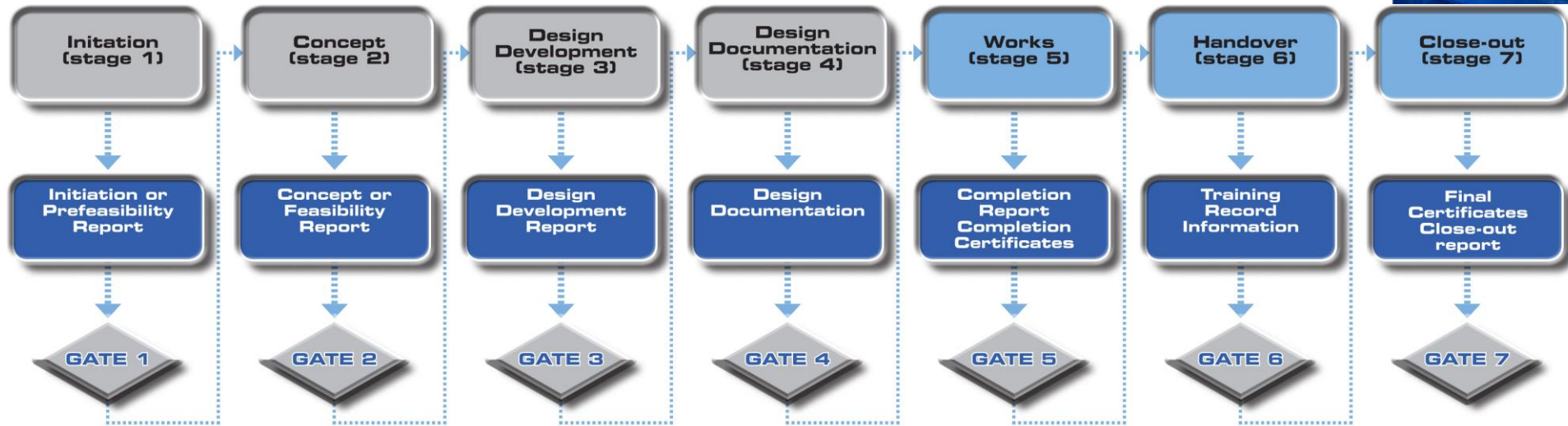
30 March 2023



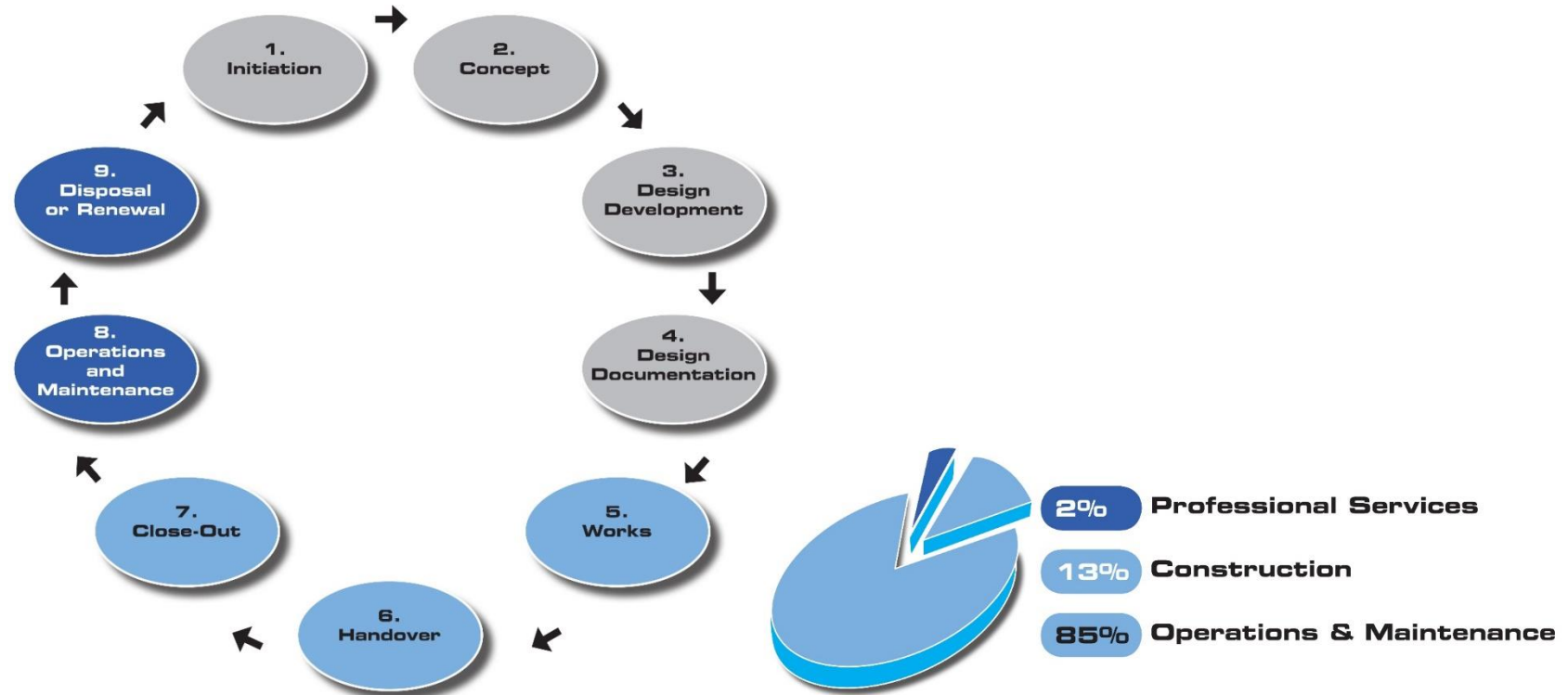
PROGRAMME

- The Consulting Engineer's role in the Infrastructure Life Cycle
- The Constitution and Legal Environment
- Procurement Practice in SA
- Procurement of Professional Services following FIDPM
- Preparing the Procurement Document
- The Pro-forma RFP document
- Evaluation of Tenders and Risk Assessment
- Administering Professional Services Contracts

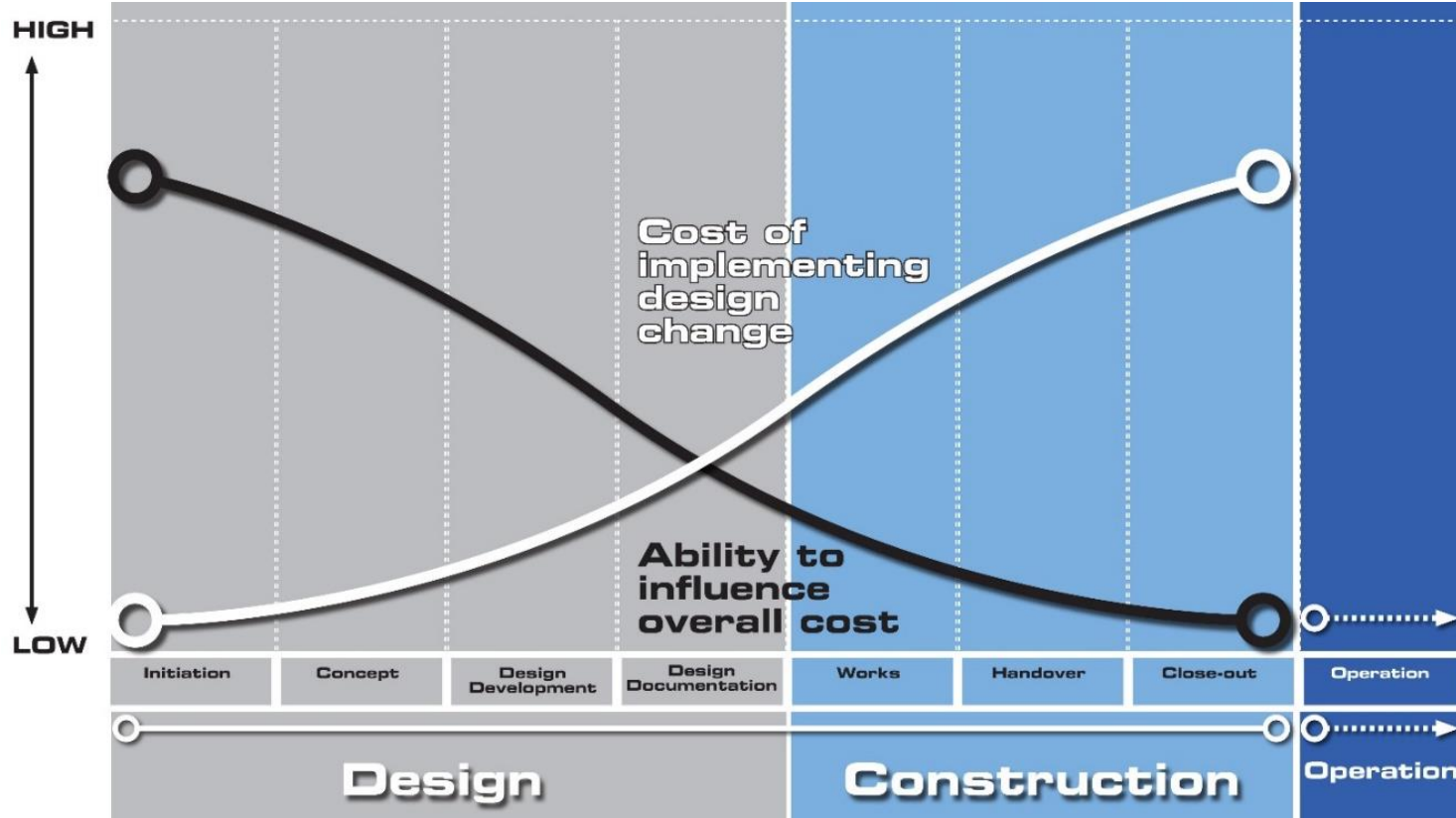
INFRASTRUCTURE DELIVERY MANAGEMENT SYSTEM (IDMS)



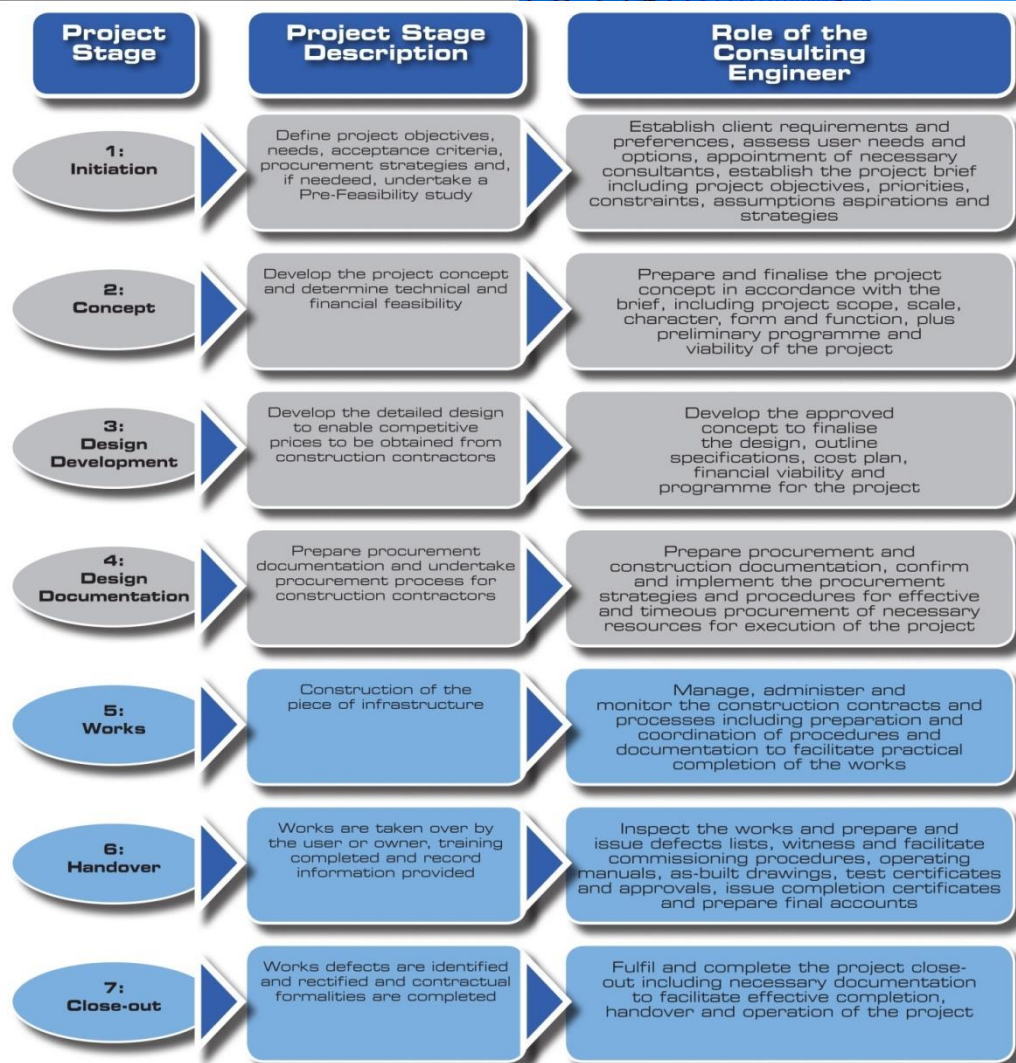
THE REAL COST OF CONSULTING SERVICES OVER THE LIFE CYCLE OF INFRASTRUCTURE



THE IMPORTANCE OF FORWARD PLANNING



ROLE OF THE CONSULTING ENGINEER DURING PROJECT DELIVERY



LEGAL ENVIRONMENT

SECTION 217 OF THE CONSTITUTION

Organs of state contracting for goods or services must

1. Must use a procurement system that is Fair, Equitable, Transparent, Competitive and Cost Effective.
2. May implement a procurement policy providing for :
 - a) Categories of preference in the allocation of contracts; and
 - b) The protection or advancement of persons, or categories of persons, disadvantaged by unfair discrimination.
3. National legislation must prescribe a framework within which the policy referred to in subsection (2) must be implemented.

FAIRNESS

- The process of offer and acceptance is conducted impartially without bias and provides participating parties simultaneous and timely access to the same information.
- Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.

EQUITABLE

The only grounds for not awarding a contract to a tenderer who complies with all the Responsiveness and Functionality requirements are restrictions identified during a Risk Assessment from doing business with the organisation, for example

- lack of capability or capacity,
- legal impediments and
- conflicts of interest

TRANSPARENT

- The procurement process and criteria upon which decisions are to be made shall be publicised.
- Decisions are made publicly available together with reasons for those decisions.
- It is possible to verify the criteria that were applied.
- The requirements of procurement documents are presented in a clear, unambiguous, comprehensive and understandable manner.

COMPETITIVE

The system provides for appropriate levels of competition to ensure cost-effective and best value outcomes.



COST-EFFECTIVE

The processes, procedures and methods are standardised with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and the least resources to effectively manage and control procurement processes

PROMOTION OF OTHER OBJECTIVES

In terms of the Preferential Procurement Policy Framework Act, (PPPFA) an organ of state must determine its preferential procurement policy and implement it.

A preference point system must be followed

- The specific goals may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, & gender or disability;
- any specific goal for which a point maybe awarded, must be clearly specified in the invitation to submit a tender;

KEY LEGISLATION

Act	Applicability
Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996)	All organs of state
Public Finance Management Act (Act 1 of 1999)	National and provincial departments and state-owned enterprises
Public Finance Management Act National Treasury Practice Notes and Instructions	National and provincial departments and state-owned enterprises
Municipal Finance Management Act, 2003 (Act No 56 of 2003)	Municipalities and municipal entities
Municipal Finance Management Act, 2003 (Act No 56 of 2003) Regulations July 2005	Municipalities and municipal entities
National Treasury Guidelines under the Local Government: Municipal Finance Management Act, 2003	Municipalities and municipal entities
Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000)	All organs of state (state owned enterprises) at discretion of Minister)
Construction Industry Development Board Act, 2000 (Act 38 of 2000)	All organs of state involved in procurement relating to the construction industry.
Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003)	Procurement provisions apply to all organs of state.
Amended Construction Sector Charter (Published in terms of Section 9(1) of BBEE Act, 53 of 2003 (see above))	All stakeholders operating in the Construction Sector
Promotion of Administrative Justice Act (Act 3 of 2000)	All organs of state
The Promotion of Equality and the Prevention of Unfair Discrimination Act, 2000 (Act 4 of 2000)	The state and all persons (natural or juristic person)
Prevention and Combating of Corrupt Activities Act, 2004. (Act No. 12 of 2004).	Public and private sector

PROCUREMENT PRACTICE IN SOUTH AFRICA (OLD)

Approach to appointment of consultants	Recommended usage of approach
Quality-Cost based selection (QCBS) Technical and financial proposals evaluated on the sum of the points for quality and price of the services to be provided and then for preference on the 90/10 or 80/20 basis	Generally recommended for most cases,
Quality based selection (QBS) Technical proposals only or separate technical and financial proposals tenderer with the highest ranked proposal is requested to submit a detailed financial proposal The final contract is thereafter negotiated.	<ul style="list-style-type: none">• A complex or highly specialised assignment, difficult to define the precise scope of work and consultants are expected to demonstrate innovation in their proposals.• An assignment that has a high downstream impact and requires the best available experts.
Least cost selection Technical proposals and financial proposals are submitted in two envelopes. The financial proposals of only those tenderers who obtain a quality score above a threshold are opened. The tenderer with the highest score based only on price and preference is selected.	A standard or routine assignment where well-established practices and standards exist and in which the contract amount is small.
Single source selection A suitable tenderer is identified, and a contract is negotiated	<ul style="list-style-type: none">• A task that represents a natural continuation of previous work carried out by the firm.• A rapid selection is essential (eg in an emergency operation).• A very small assignment.• An assignment where only one firm is qualified or has the experience of exceptional worth for the assignment.

CURRENT PROCUREMENT METHODS – 80/20 AND 90/10

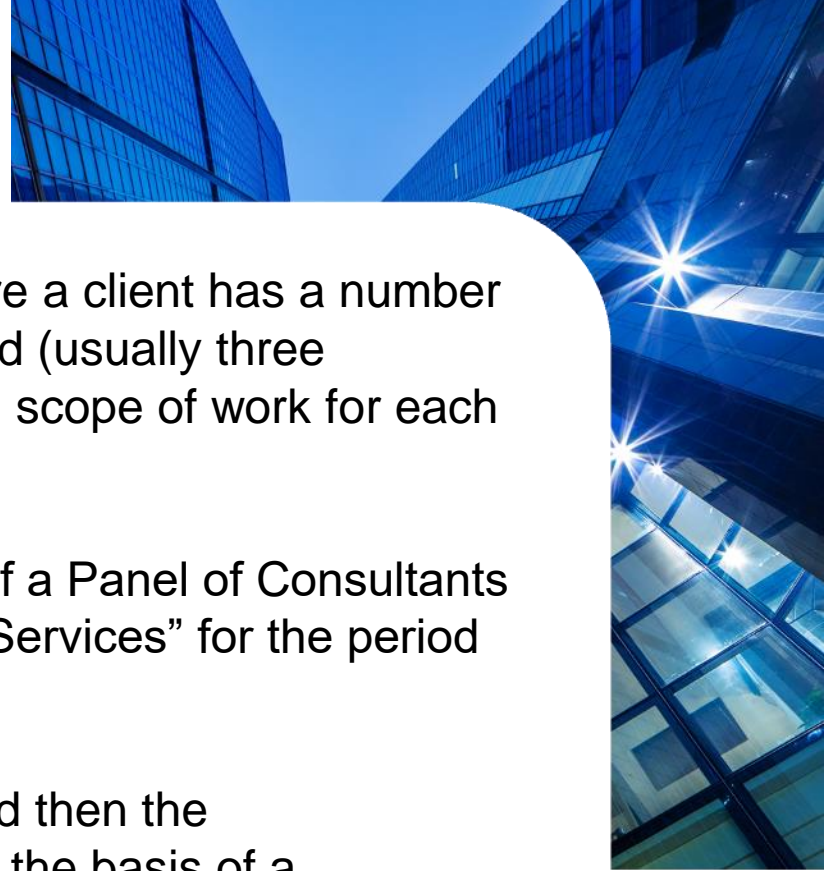
National Treasury Instruction Note issued in September 2010 on the amended guidelines for bids that include functionality (i.e. quality) as a criterion for evaluation, requires:

1. The assessment of functionality is done, and a bid must be disqualified if it fails to meet the minimum threshold for functionality as per the bid invitation.
2. Thereafter only the qualifying bids are evaluated in terms of the 80/20 or 90/10 price/preference point systems and functionality plays no further part in the evaluation.



CURRENT PROCUREMENT METHODS

PANEL APPOINTMENTS



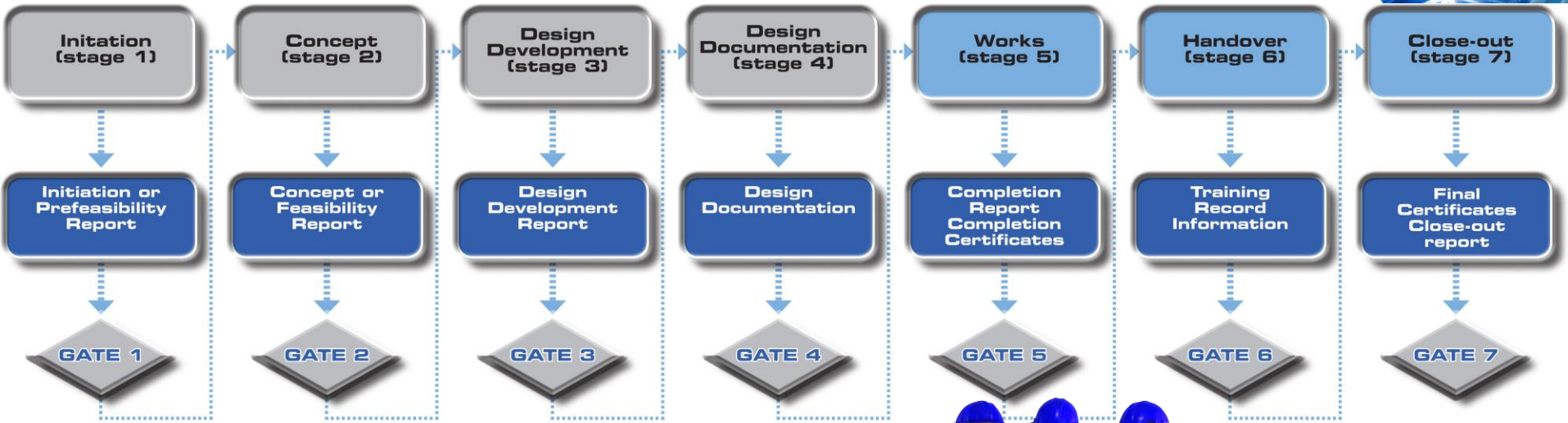
- Panel appointments are commonly used where a client has a number of projects to be delivered in an ensuing period (usually three financial years), but the scope of services and scope of work for each project cannot yet be clearly defined.
- Tenders are invited for the “the Appointment of a Panel of Consultants for the provision of Professional Engineering Services” for the period concerned.
- Evaluation is done on first on Functionality and then the price/preference points evaluation is done on the basis of a percentage fee for a sample project with a given construction value.



CESA BUSINESS INTEGRITY

1. ECSA CODE OF CONDUCT – individuals
2. CESA CODE OF CONDUCT – CESA Member firms
3. CESA Member firms sign Statement of Commitment to Business Integrity aimed at ensuring service free of corruption
4. ECSA disciplinary action visit website, well established rules for inquiry.
5. CESA Integrity Committee and disciplinary process

INFRASTRUCTURE DELIVERY MANAGEMENT SYSTEM (IDMS)



ECSA Stages for Consulting Engineering Services

1 Inception

**2 Concept
and Viability**

**3 Design
Development**

**4 Documentation
and Procurement**

**5 Contract
Administration
and Inspection**

6 Close Out

IDMS Project Stages

1 Initiation

2 Concept

3 Design Development

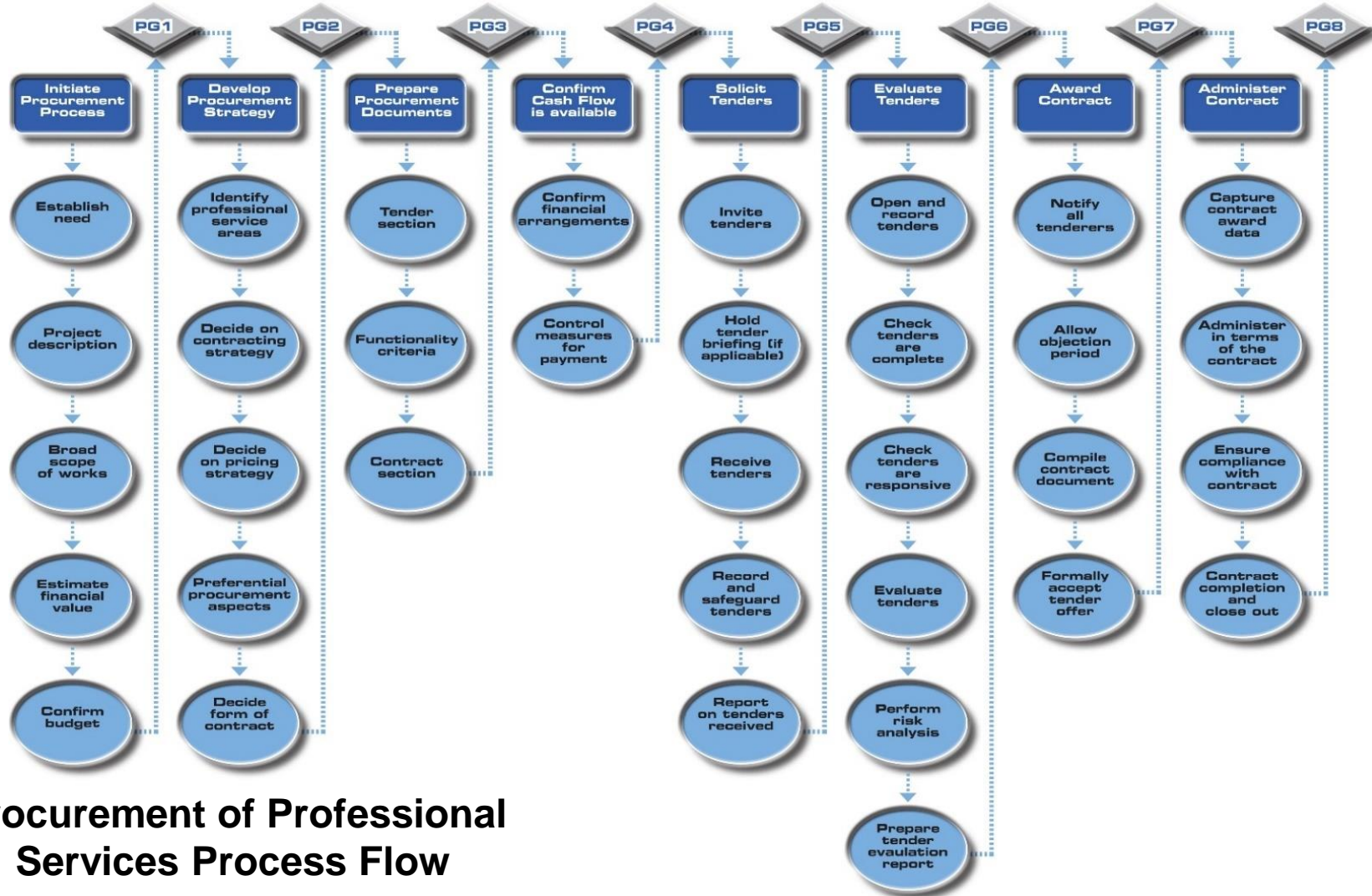
4 Design Documentation

**5 Works
(includes construction
of the works
by the contractor(s))**

6 Handover

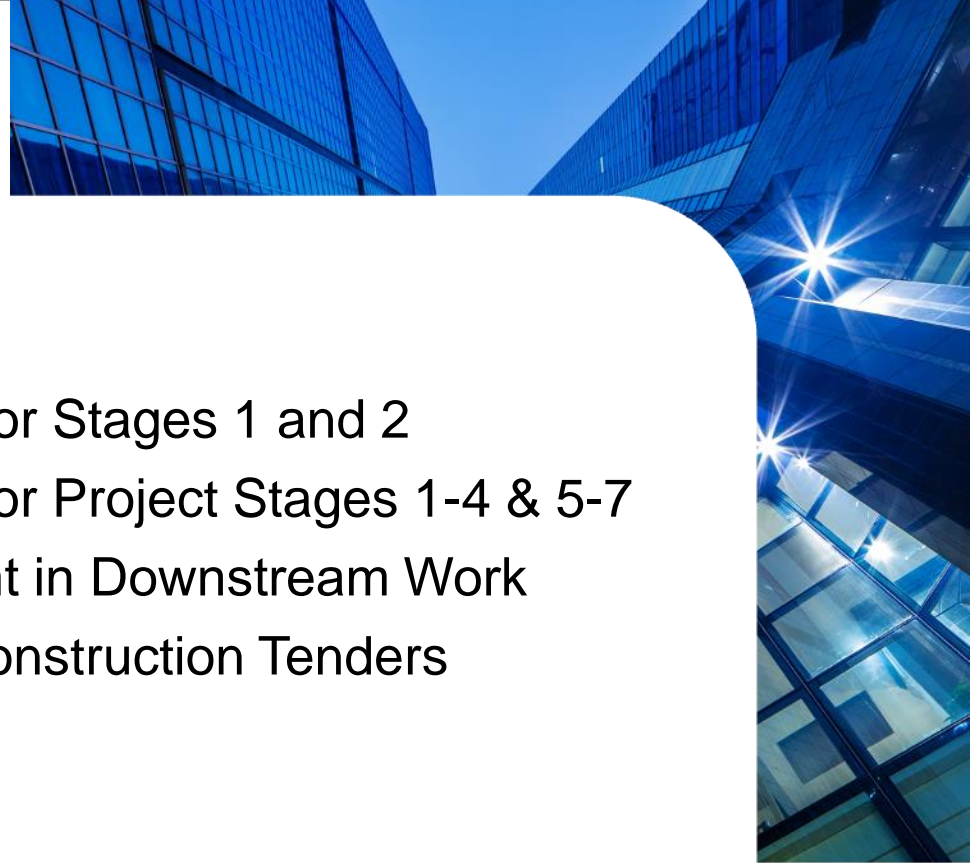
7 Close-out

COMPARISON OF ECSA AND IDMS STAGES



Procurement of Professional Services Process Flow

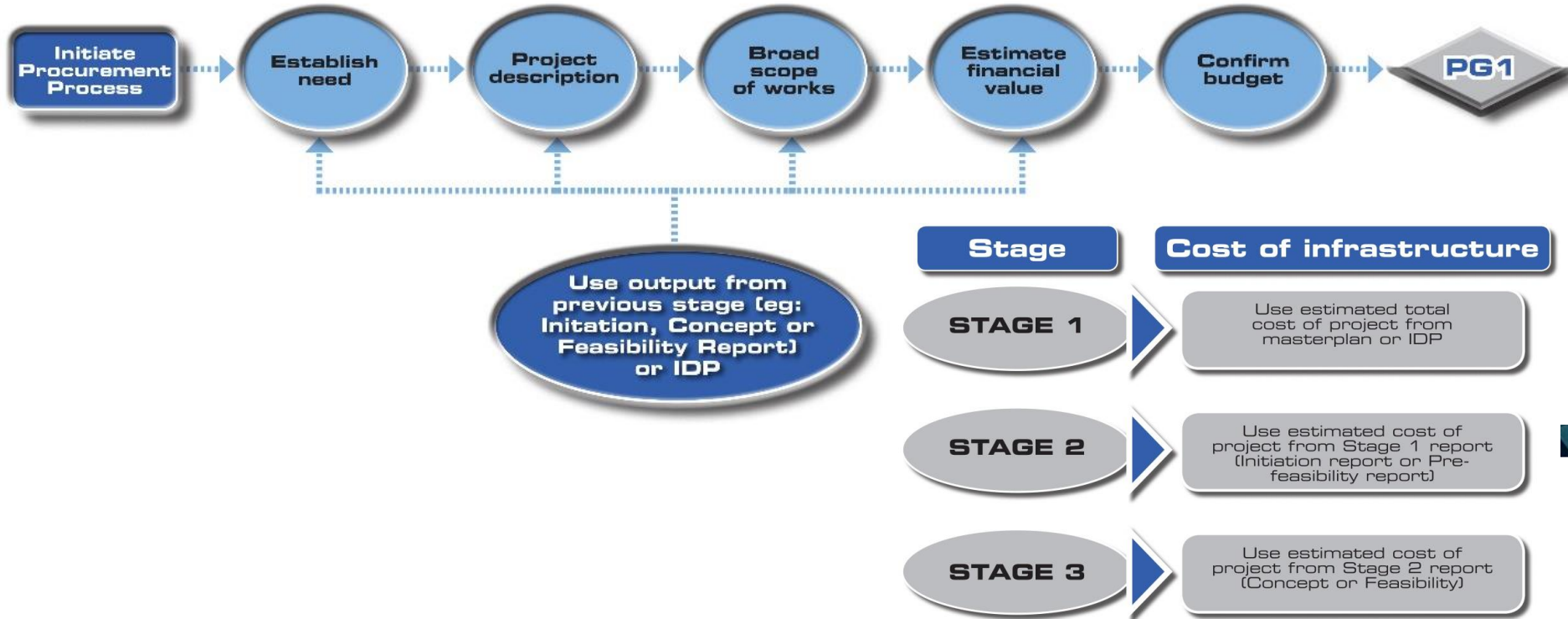
APPOINTING SEPARATE CONSULTANTS FOR DIFFERENT STAGES



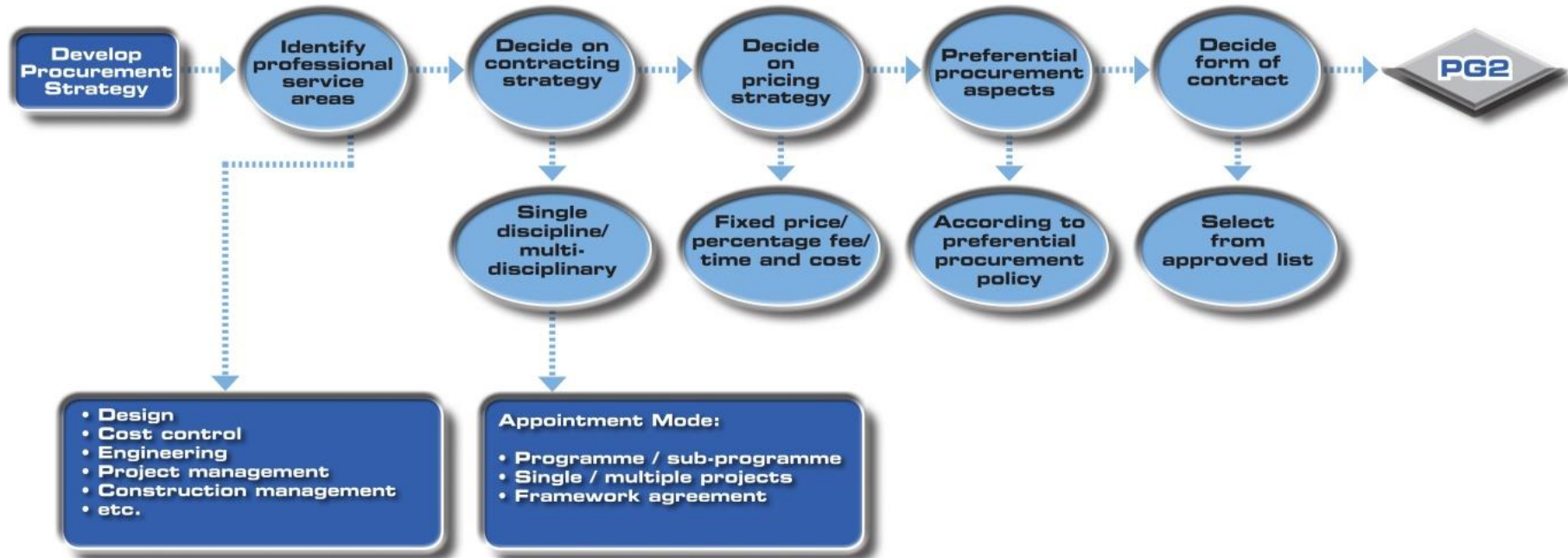
- Appointing Separate Consultants for Stages 1 and 2
- Appointing Separate Consultants for Project Stages 1-4 & 5-7
- Limiting a Consultant's Involvement in Downstream Work
- Conflict of Interest in Evaluating Construction Tenders



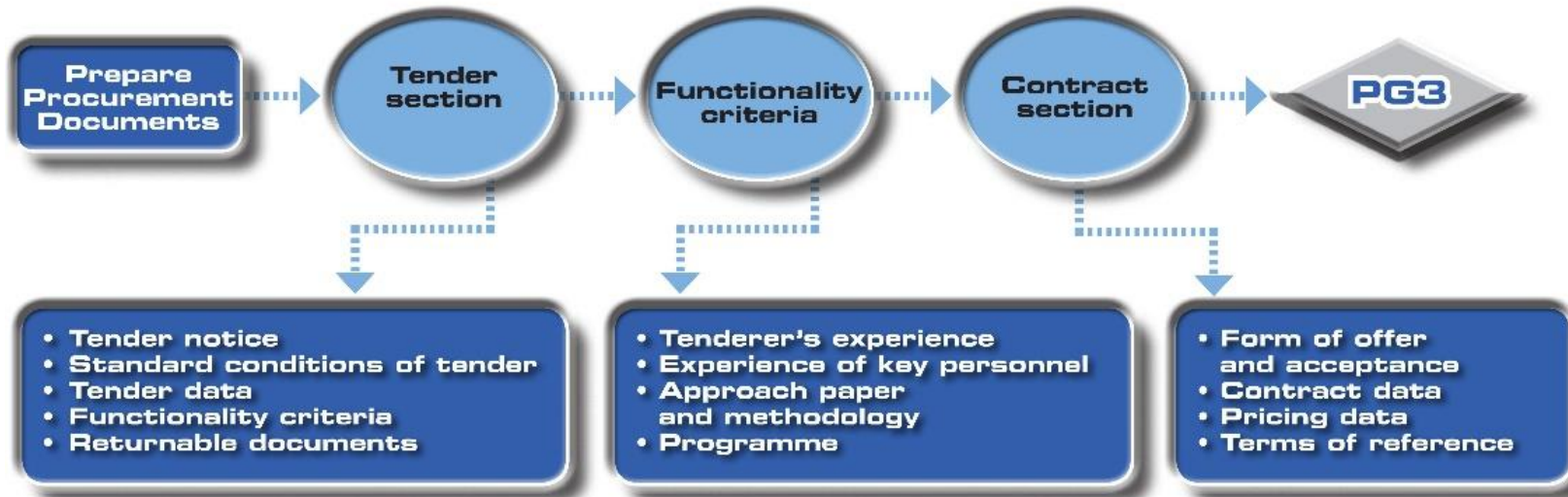
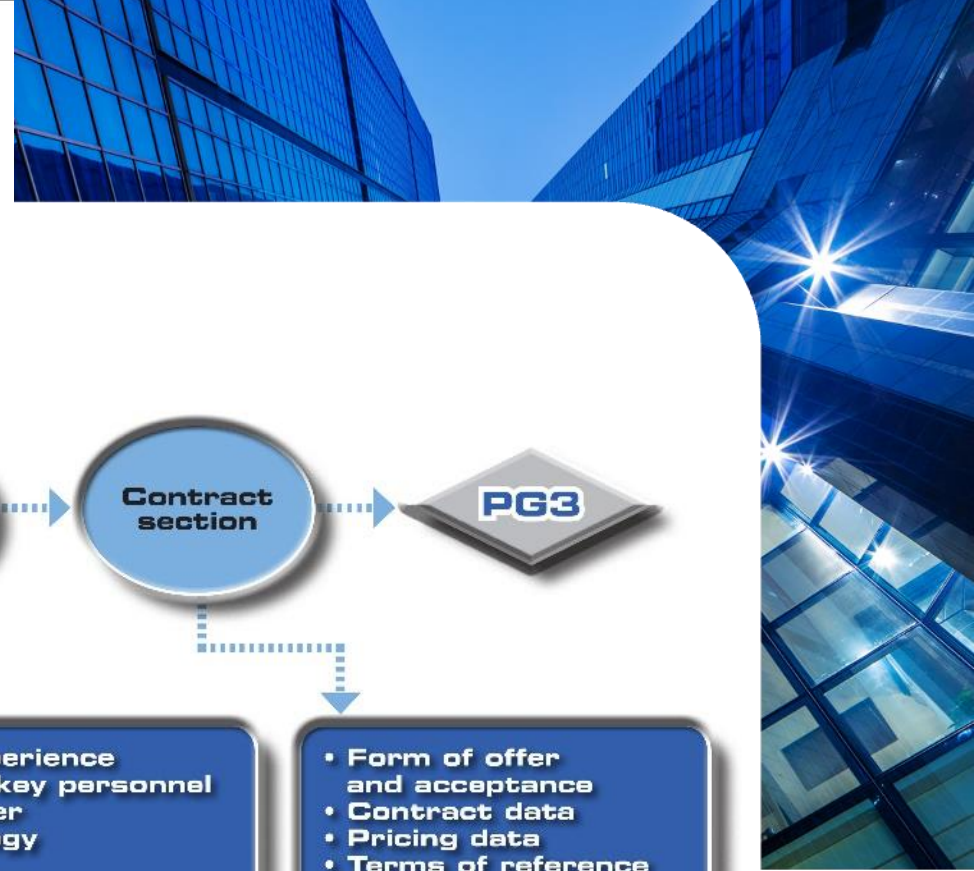
PG1: INITIATE PROCUREMENT PROCESS



PG 2: DEVELOP PROCUREMENT STRATEGY



PG 3: PREPARE PROCUREMENT DOCUMENTS



PG 3: DOCUMENT STRUCTURE

	Section	Sub-section
T	TENDER SECTION Provides information related to the tender procedure for consulting engineering services	T1.1 Tender Notice and Invitation to Tender
		T1.2 Tendering Procedures
		T2 Returnable Documents
C	CONTRACTUAL SECTION Provides information related to the contractual relationship between the client and consulting engineer, pricing details, and the project terms of reference	C1.1: Form of Offer and Acceptance
		C1.2 Contract Data
		C.2 Pricing Data to establish the basis on which the consulting engineer is required to establish the tender price, such as the ECSA Guideline Professional Fees
		C.3 Terms of Reference, including the Project scope of work and the scope of services to be provided by the consulting engineer.

PRO FORMA RFP

- Part 2 intended assist with the preparation of a of a tender document for the procurement of consulting engineering services.
- Modelled on the Cidb Standard for Uniformity in Construction Procurement (SFU), August 2019 and SANS 10845 (2019 version of the SFU does not make provision for professional services)
- Uses the CESA Model Professional Services Agreement as the standard form of contract, but could be used with any other recognised standard form of professional services agreement.
- For use on small-to-medium sized projects which are not complex in nature and where a single consulting engineering firm is to be appointed for engineering work
- Use with care to ensure that the final product complies with all relevant legislation and the client's supply chain management policy.
- Includes guidance to the compiler in the form of "*Compiler notes*" shaded in grey
- The pro-forma/template may be obtained free of charge in electronic format as either a pdf or MS word document upon request to general@cesa.co.za

EXTRACT FROM PRO-FORMA RFP

C 1.2.2 SPECIFIC CONTRACT DATA

C 1.2.2.1 DATA PROVIDED BY THE CLIENT

(Compiler note: The following specific contract data is based on the specific data included in the CESA Model Professional Services Agreement, May 2021. If a different standard form of professional service agreement is selected, the specific contract data must be modified accordingly)

a	The Client is (insert Client name, eg the HERITAGE MUNICIPALITY) represented by: (Insert Client department, eg THE DIRECTOR: WASTEWATER AND ELECTRICAL ENGINEERING DEPARTMENT	
b	The client's designated representative with authority to give instructions and to receive information is: <i>(Compiler note: insert here the details of the person who will act as the client's representative in all matters related to the professional services contract. The person so named must have the authority to make decisions and issue instructions in all matters related to the contract and would normally be the Director, or person in charge of the client department)</i>	
	Name	
	Telephone	
	Email	
c	The project is the provision of consulting engineering services for the: <i>(Compiler note: insert here the project name, eg: new Wastewater Treatment Works and new Substation for Heritage Municipality.</i>	

FUNCTIONALITY CRITERIA

Functionality Criteria	Outline	Typical Weighting
Tenderer's Experience	Relevant Projects with Referee Reports	25
Experience of Key Staff	List of key project team members required including minimum relevant qualifications, professional registration, and experience	50
Methodology	List required content and criteria for scoring approach to project, including management of risks	20
Programme	Show work breakdown structure with key milestones	5
Total		100

FUNCTIONALITY SCORING FOR KEY STAFF

Key Staff	Compulsory Requirements (in terms of Clause F.3.11.9 of the Tender Data)
Project Lead	<p>Fifteen (15) years of experience or more on projects relating to the design and construction monitoring of similar projects</p> <p>AND</p> <p>BSc Degree/BTech Degree/BEng Degree/NHD in the appropriate branch of Engineering</p> <p>AND</p> <p>Registration with ECSA as PR Eng/PR Tech Eng</p>
Lead Design Engineer	<p>Ten (10) years of experience or more on projects relating to civil and hydraulic design of similar projects</p> <p>AND</p> <p>BSc Degree/BTech Degree/ BEng Degree/NHD in in the appropriate branch of Engineering</p> <p>AND</p> <p>Registration with ECSA as PR Eng/PR Tech Eng</p>
Discipline Design Engineers (as required for the project)	<p>Ten (10) years of experience or more on projects relating to [discipline e.g. civil, structural, mechanical, electrical etc] design of similar projects</p> <p>AND</p> <p>BSc Degree/BTech Degree/ BEng Degree/NHD in in the appropriate branch of Engineering</p> <p>AND</p> <p>Registration with ECSA as PR Eng/PR Tech Eng</p>

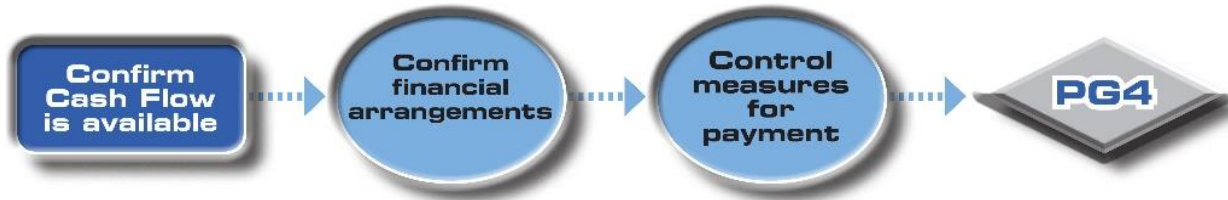
FUNCTIONALITY SCORING: APPROACH AND METHODOLOGY

	Approach and methodology
Poor (score 5)	The technical approach and/or methodology is poor/is unlikely to satisfy project objectives or requirements. The tenderer has misunderstood certain aspects of the scope of work and does not deal with the critical aspects of the project.
Satisfactory (score 10) (Minimum Score required)	The approach is generic and not tailored to address the specific project objectives and methodology. The approach does not adequately deal with the critical characteristics of the project. The quality plan, manner in which risk is to be managed etc. is too generic.
Good (score 15)	The approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The quality plan and approach to managing risk etc. is specifically tailored to the critical characteristics of the project.
Very good (score 20)	Besides meeting the “good” rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the-art approaches. The approach paper details ways to improve the project outcomes and the quality of the outputs.

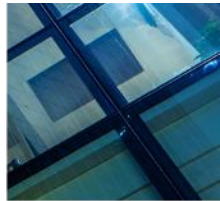
PRICING DATA

- Follow best practice principles as set down by ECSA
- Scope of services and remuneration in accordance with ECSA Guideline Scope of Services and Tariff of Fees
- Fee can be percentage based, lump sum or time based
- Tendered fee is generally remeasurable
- Generally percentage fees for normal services
- Time based fees for Additional Services, Construction Monitoring, and Studies, Reports and Investigations
- Expenses and costs to be reimbursed
- Allow provisional sums for additional services

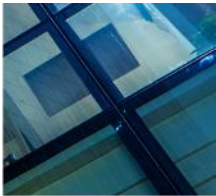
PG 4: CONFIRM CASH FLOW



PG5: SOLICIT TENDERS

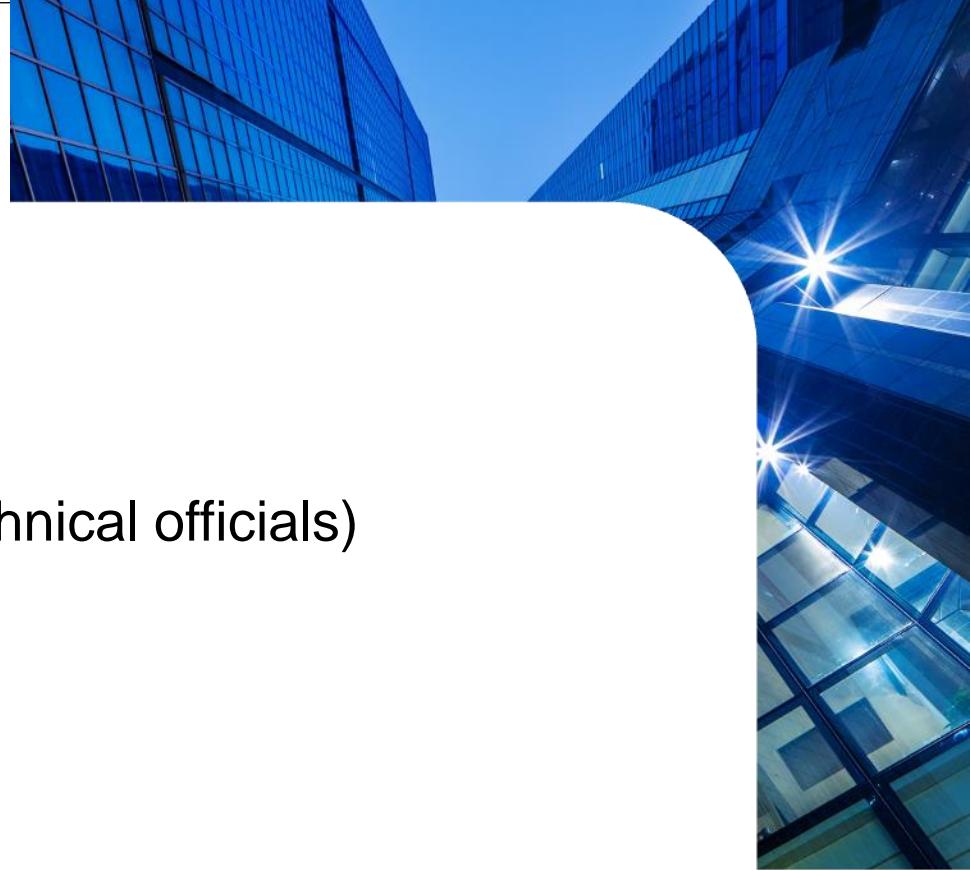


PG 6: EVALUATE TENDERS

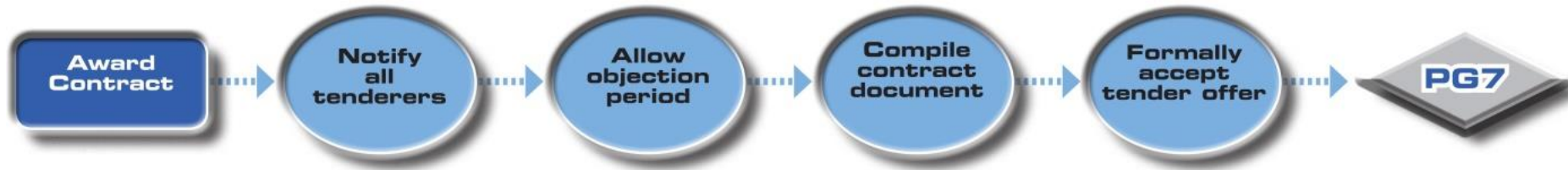


EVALUATION OF TENDERS

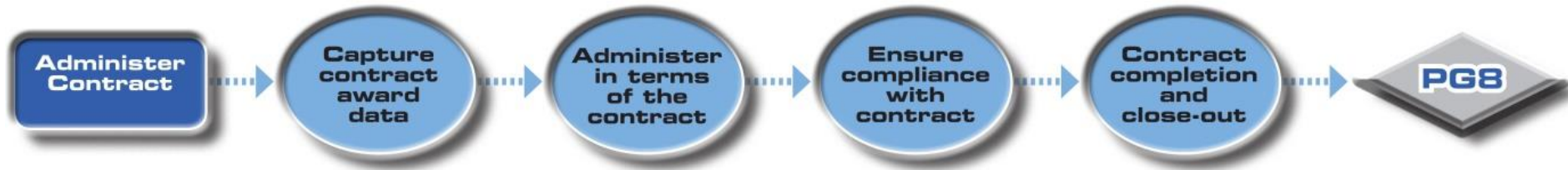
- Complete
- Responsive
- Functionality (evaluated by technical officials)
- Risk Analysis



PG 7: AWARD CONTRACT



PG 8: ADMINISTER THE CONTRACT



APPENDICES:

- Appendix A: List Of Engineering Disciplines
- Appendix B: Panel Appointments And Framework Agreements
- Appendix C: Examples Of International Best Practices -
Procurement Of Consulting Engineering Services
- Appendix D: Useful Websites
- Appendix E: Consulting Engineer Performance Scorecard



‘Your Partner in Enabling
Consulting Engineering
Excellence’