FINAL DRAFT

INTERNATIONAL STANDARD

ISO/FDIS 22058

ISO/TC 59/SC 18

Secretariat: SABS

Voting begins on: **2021-10-27**

Voting terminates on: **2021-12-22**

Construction procurement — Guidance on strategy and tactics

iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO/FDIS 22058

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html. (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 18, *Construction procurement*. ISO/FDIS 22058 https://standards.iteh.ai/catalog/standards/sist/ae6a8ca3-9da0-4d62-bb9d-

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Introduction

Procurement is defined in the ISO 10845 series as "the process which creates, manages and fulfils contracts". Procurement accordingly commences once a need for goods and services or any combination thereof has been identified and it ends when the goods are received, the services and construction works are completed, and contracts are closed out. It embraces the concepts of (see ISO 21502):

- planning for procurement when procurement strategies are developed, procurement criteria are identified and contract specifications are developed;
- the evaluation and selection of a contractor in accordance with selected criteria;
- administering contracts involving the monitoring of contract performance, managing contract changes and corrections, dealing with claims and ending contracts and closing contracts;
- closing contracts when the contract obligations of the parties have been met or the contract is closed early in accordance with the termination clauses.

Delivery management is the critical leadership role played by a knowledgeable client to plan, specify, procure and oversee the delivery of construction works projects resulting in project outcomes. Procurement yields the necessary resources to deliver projects while delivery management provides the necessary leadership and oversight management and forms part of the governance or quality oversight arrangements for construction-related projects.

ISO 10845-1 describes generic procurement processes and establishes generic methods and procedures for procurements enabling a procurement system to be established within an organization. ISO 10845-4 contains standard conditions for the calling for expressions of interest enabling respondents to be prequalified to be admitted to a data base or be invited to submit tender offers. ISO 10845-3 contains standard conditions of tender enabling the process of offer and acceptance to be conducted. ISO 10845-2 establishes a uniform format for the compilation of calls for expressions of interest, tender and contract documents, and the general principles for compiling procurement documents for supply, services and construction contracts, at both main and subcontract levels.

ISO 10845-1 describes a number of techniques and mechanisms associated with targeted procurement procedures, all of which are designed to promote the participation of targeted enterprises and targeted labour in contracts. Key performance indicators (KPIs) relating to the engagement of enterprises, joint venture partners, local resources and local labour in contracts are needed to implement many of these procedures. ISO 10845-5 to ISO 10845-8 establish KPIs to measure the outcomes of a contract in relation to the engagement of target groups, and to establish a target level or performance for a contractor to achieve or exceed in the performance of a contract.

The ISO 10845 series only addresses parts of the procurement and delivery management system required for the delivery of construction works projects. It focuses on the characteristics of procurement processes, methods and procedures and the detail relating thereto, concentrating on the acquisition phase of procurement i.e. the areas which are commonly of greatest interest to regulators. The ISO 10845 series introduces the concept of procurement strategy for a particular procurement, provides a range of methods to solicit tender offers, but falls short of providing definitive guidance on the development of a procurement strategy and procurement tactics and ignores the funding options that are available.

There are a number of options relating to how construction works are funded and how design and interface responsibilities are allocated. There are also options relating to the different types of contracts that may be entered into during the life cycle of a project, how contractors are to be remunerated, how secondary objectives are to be promoted through a contract and how the market is to be approached to solicit tender offers. Such choices impact upon procurement and project outcomes.

This document provides guidance on the development of procurement strategy and the procurement tactics which are necessary to effectively implement a procurement strategy.

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Annex A describes basic delivery management principles and practices which can inform decisions made regarding the options for engaging the market for new or refurbished construction works.

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Construction procurement — Guidance on strategy and tactics

1 Scope

This document provides guidance on:

- a) options for engaging the market in satisfying a client's need for new or refurbished construction works;
- the development of procurement strategies for one or more projects involving the acquisition of goods, services or any combination thereof, irrespective of complexity, size, duration or life cycle stage;
- c) the formulation of procurement tactics which enable identified procurement strategies to be effectively implemented.

This document is applicable to the private sector, public sector or community organizations.

Note services A client can be a project owner or an entity within a supply chain which contracts for goods and iTeh STANDARD PREVIEW

2 Normative references (standards.iteh.ai)

There are no normative references in this document

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3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at https://www.electropedia.org/

3.1

construction works

everything that is constructed or results from construction operations

[SOURCE: ISO 6707-1:2020, 3.1.1.1, modified — The US preferred term and notes to entry have been removed.]

3.2

framework agreement

agreement between a client and a contractor, the purpose of which is to establish the terms governing *orders* (3.3) to be awarded during a given period, in particular with regard to price and, where appropriate, the quantity envisaged

[SOURCE: ISO 10845-1:2020, 3.17, modified — "employer" has been replaced by "client".]

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3.3

order

instruction to supply goods, carry out *construction works* (3.1) and/or provide services under a *framework agreement* (3.2)

[SOURCE: ISO 10845-1:2020, 3.20]

3.4

secondary procurement policy

procurement policy that promotes objectives additional to those associated with the immediate objective of the procurement itself

[SOURCE: ISO 10845-1:2020, 3.30]

3.5

stakeholder

person, group or organization that has interests in, or can affect, be affected by, or perceive itself to be affected by, any aspect of the project

[SOURCE: ISO 21500:2021, 3.18, modified — "programme or portfolio" at the end of the definition has been removed.]

3.6

value for money

optimal use of resources to achieve intended project outcomes

Note 1 to entry: Optimal use of resources results in the most desirable possible outcomes given expressed or implied restrictions or constraints.

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[SOURCE: ISO 10845-1:2020, 3.40]

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4 Options for engaging the market for new or refurbished construction works

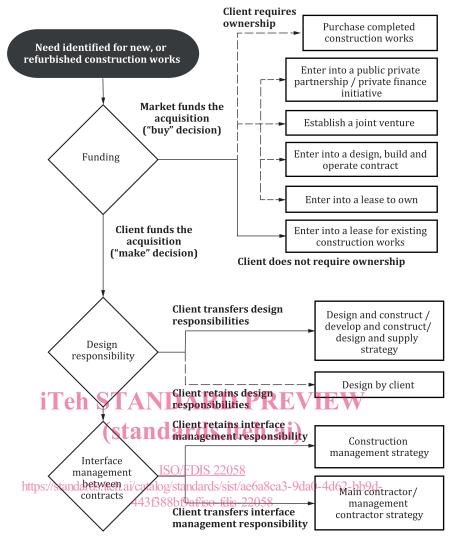
4.1 Concept

A client, where new or refurbished construction works is required, needs to answer basic questions relating to (see Figure 1)

- the financing of the project on a "buy" or "make" basis (see 4.2), and
- if the decision is to "make", whether or not design responsibilities (see 4.3) and / or responsibilities for the management of interfaces between direct contracts (see 4.4) are to be retained or transferred.

This is an important decision as the choice of "buy" or "make" determines the number of contracts that need to be procured and directly overseen as well as the capacity and capabilities of the client delivery management team which needs to be put in place to oversee the delivery of the required construction works (see <u>Annex A</u>). It also informs the procurement strategies that are adopted (see <u>Clause 5</u>).

It may be necessary to perform certain feasibility studies and financial exercises including commercial, economic and fiscal feasibility prior to a contract being concluded. Strategies such as early contractor involvement, or where the other party to the contract is likely to subcontract most of the works, early supply chain involvement, may need to be pursued. It may also be important to engage in strategic collaboration to embed economic, social and environmental value and align expectations regarding practices such as those relating to health and safety and employment.



NOTE Clients appoint their own personnel or contract professional service providers to perform their allocated design and interface management responsibilities in the delivery process

Figure 1 — Common options for engaging the market for new or refurbished construction works ("buy" or "make" decisions)

NOTE A structured approach has been developed in this document to deal with decisions and descriptions of procurement approaches. Rather than focusing on contracting methods, the distinguishing features of each have been identified in a way that leads to the answering of the six underlying questions relating to the following which explain how any specific project is being procured:

- source of funding e.g. owner-financed, public sector-financed, developer-financed, PFI, PPP;
- selection method e.g. negotiation, partnering, frameworks, selective competition, open competition;
- responsibility for design e.g. architect, engineer, contractor, in-house design teams, supplier;
- responsibility for co-ordination e.g. client, lead designer, principal contractor, joint venture, construction manager;
- price basis e.g. work and materials defined by bills of quantity, cost reimbursement, whole building, a fully-maintained facility, performance;
- supply chain integration e.g. single-source, integrated, fragmented, competitive, collaborative.

These questions derive from the differences between historical contracting methods and provide a basis for a systematic approach to the procurement strategy for future projects that will remain contextual despite new terms for different approaches being coined.

4.2 Financing of the project

It is possible that the source of funding is not an option as it can be a matter of policy or regulation for any given client.

The financing of the project on a "buy" basis requires the market to pay for the acquisition incrementally as the client pays only for completed work. Under this financing mechanism, the developer typically carries the cost of providing the required construction works and commonly receives payment either in the form of a lump sum, a monthly amount for the term of the contract or a percentage of the income stream following the completion of the project. The options commonly available to the client where the market funds the acquisition are indicated in Table 1.

Client requirements	Options available to the client
	Purchase completed construction works
Client requires ownership	Enter into a public private partnership or a private finance initiative agreement
	Establish a joint venture
iTeh S'	Enter into alease to own agreement (
Client does not require ownership	Contract on a design, build and operate basis
	Enter into a lease for construction works

Table 1 — Options where the client requires the market to fund the acquisition

The parties to the contract can agree to share skills, technology and responsibility and transfer risks. Partnership arrangements can take on different forms to address issues such as spreading the cost of investment over the lifetime of the construction projects, greater predictability over cost and time, lowering of procurement costs, flexibility of programme delivery, performance incentives, potential to be off-balance sheet, ability of public sector to retain influence over strategic decisions, potential for continuous improvement through successive phases of work, early commercial input from private sector parties. Public sector partnering arrangements vary with the level of involvement and risk that the private entity holds in the arrangement with the public entity and how projects are financed. Partnership arrangements can range from simple collaboration to mitigate risks to the transfer of risks to the private party to the extent that this party puts its own capital at risk by funding its investment in the project with debt and shareholder equity. Partnership arrangements may also include the setting up of joint ventures to deliver specific projects, payment based on successful delivery, transferring of institutional function to the private party and permitting the private party to make use of public property.

The client's involvement in the delivery management of a project where the market funds the project is generally limited (see Annex A). In procurements of this kind, a client may need to appoint a transaction advisor as the other party to the contract oversees or has already overseen the delivery of the project. A client nevertheless needs to undertake a procurement process or negotiate a contract to acquire the outcomes associated with the selected project delivery route. Furthermore, clients need to source some professional capacity to ensure that due diligence is undertaken at an appropriate level to confirm that the requirements of the contract are delivered in accordance with the terms of the contract.

The financing of the project on a "make" basis, on the other hand, requires the client to directly pay all contractors for the goods and services associated with the delivery of the project incrementally as the works proceeds. It also requires that the client play an active role in the delivery of the project as indicated in Annex A and to make decisions regarding the allocation of design and interface management responsibilities between the parties to a construction contract. A client needs to appoint professional service providers to undertake design and interface management responsibilities which it has retained,

where it lacks in-house professional expertise to assume these responsibilities. Accordingly, decisions made regarding responsibilities for design and interface management determine the nature and number of professional service agreements that are entered into.

Strategies and tactics appropriate to the selected option to engage the market need to be adopted to attain desired outcomes.

4.3 Design responsibilities

A client can retain design responsibility, in which case the contractor undertakes construction on the basis of production information issued by the client (design by client strategy). Alternatively, the client can assign design responsibility to the contractor in which case the contractor:

- designs the works based on requirements established by the client and constructs it (design and construct strategy) or provides a solution to the client's requirements and manufactures and installs the required works or component thereof (design and supply strategy); or
- completes the production information based on a scheme design provided by the client and constructs it (develop and construct strategy).

In the design and construct and develop and construct strategy, a client needs to have a capability to procure the necessary professional resources to develop the end-of-stage deliverables which form the basis of the scope of work for a contractor who is assigned design responsibilities. This is also necessary for the reviewing of the outputs of the contractor for general conformity with the scope of work and what has been agreed at each stage following the appointment of a contractor. A client may, to obtain continuity in aspects of the design, novate professional service providers to a contractor as a condition of contract e.g. mechanical design. (Novation is the substitution of a new contract in place of an old one or the substitution of one party for another party in a contract,)

Table 2 indicates the appropriate usage of strategies involving different allocations of design responsibilities. The client is at risk for delays in production information where the client retains design responsibilities. The attractiveness of the assigning of design responsibilities to contractors is that there is single point responsibility for design and construction which overcomes fragmentation in design through integration. However, early contractor involvement (the practice of appointing a contractor before the design is complete) linked to a design by client strategy, possibly though a framework agreement, also enables construction knowledge, experience and inputs to be obtained earlier than normal to reduce costs, before the price for detailed design and construction is agreed. There are accordingly several options to achieve design integration and minimise waste through collaboration between designers and constructors.

4.4 Interface management responsibilities

A client can retain responsibility for managing interfaces between direct contracts in which case the client is responsible for the planning and managing of all post contract activities for work packages which have dependencies due to interfaces (construction management strategy). Alternatively, a client can assign interface responsibilities to a contractor who subcontracts parts of the work (main contractor strategy) or most of, if not all, the work to others (management contractor strategy).

Table 2 — Appropriate use of strategies involving design responsibilities

Strategy	Appropriate usage		
Design by	Where one or more of the following applies		
client	 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,		
	 reasonable certainty in cost and time is required before a commitment to proceed to construction is made, 		
	— independent design advice is required, or		
	 the flow of outstanding production information after the formation of the contract can be tightly managed 		
Develop and	Where		
construct	 the client requires integrated detailed design and construction, based on the client's design development report, and single point responsibility, 		
	— standard designs exist which need to be made site specific, or		
	 the works need to be priced and commence before the production information has been completed 		
Design and	Where the client requires		
construct	— integrated design and construction and single point responsibility.		
	— that design risks lie with the contractor in return for price certainty, or		
	 that the cost and completion date be agreed when a decision to proceed with the project is made 		

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Framework for developing a procurement strategy

5.1 General

A procurement strategy can be developed for a single project, a programme of projects or a portfolio of projects where the client funds the acquisition. It identifies the best way of achieving objectives and value for money for a single contract or a group of contracts linked to a project, whilst taking into account risks and constraints. Decisions regarding specific procurement strategies should only be made after the option to engage the market has been identified.

Different options in a procurement strategy carry different level of risk for the client. No one option is right for every project. For each situation, there are advantages and disadvantages in the use of any specific method. The client needs to carefully assess its project requirements, objectives and potential challenges and find the method that offers the best opportunity for success and achieving its value proposition (promise of value to be delivered) for the project.

The framework as set out in Figure 2 enables choices to be made and aligned with procurement objectives in the development of a procurement strategy. The application of the framework can rationalise the delivery of projects within a programme or portfolio of projects and minimise the contractual relationships which are entered into. This can be used to address capacity constraints in spending public sector budgets as it reduces the number of contracts that need to be procured and managed and tap into the resources of the private sector without compromising objectives.

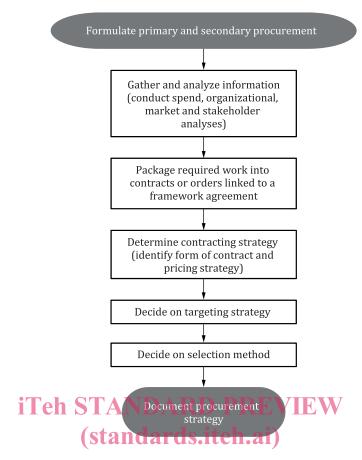


Figure 2 — Framework for the development of a procurement strategy

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The application of the framework can also be applied in support of the delivery culture which the client wishes to pursue in delivering the project e.g. long-term collaborative relationship.

5.2 Strategic considerations

Procurement strategy is formulated around procurement objectives which may relate to either the delivery of the product (primary objectives) and what can be promoted through the delivery of the product (secondary objectives) i.e. broader societal objectives. Procurement strategy is also informed by spend, organizational, market and stakeholder analyses.

The option to engage the market needs to be decided upon where projects involve the provision, alteration, refurbishment or rehabilitation of construction works before procurement strategy can be formulated. Clients need to make decisions which include who funds the acquisition, who owns the construction works, which party to the contract assumes responsibility for the design of the works and interface management between contracts (see <u>Clause 4</u>) and how the parties will collaborate to manage the project.

The components of a procurement strategy for a particular procurement commonly includes the development of:

- a packaging strategy which focuses on the organization of work into contracts or orders issued in terms of a framework agreement;
- a contracting strategy which focuses on the selection of a suitable form of contract including the basis for remunerating contractors, which, if relevant, is informed by decisions made when selecting the option to engage the market;
- a targeting strategy which identifies the procedures for promoting secondary procurement objectives;