

Quality assurance of concept selection, as well as management documentation
and cost estimates for the selected project option

Contract strategy

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1. Introduction

A project's strategy should describe how the project as a whole is to be implemented in order to achieve its objectives in the best possible way. The overall project strategy will naturally consist of several sub-strategies which in most cases will be closely interlinked, with the implementation strategy, contract strategy, communication strategy and management strategy being among the most common.

The contract strategy should describe how to ensure appropriate competition during the selection phase, how to allocate tasks, responsibilities and uncertainty, and which contractual mechanisms should be put in place to support management during the implementation phase. Many organisations use two types of contract strategy:

- A general contract strategy, with guidelines from the organisation
- A specific contract strategy for each individual project.

The chapters below explore aspects related to these strategies in greater depth and describe critical individual assessments and the strategy development process. In this guide, the terms 'Client' and 'Supplier' are used to refer to the two parties in a contractual relationship. These are general terms that will be unambiguous across all sectors and between all types of contracting parties¹.

2. General contract strategy

There will often be overarching commercial guidelines, regulatory requirements or other general guidelines governing how an organisation manages its contract lifecycle. These can be summarised in a general contract strategy that will apply to the organisation and the projects under its remit. Examples of areas from which such guidelines may originate include:

- Standardisation requirements
- Requirements regarding the use of specifications
- Requirements regarding the use of framework agreements
- Requirements regarding the use of standard contracts
- Requirements regarding processes and procedures
- Requirements under laws and regulations
- Desire for long-term supplier development²
- General long-term market analyses
- Assessment of the organisation's overall demand in the market.

The 'Regulations on Public Procurement' are one of the framework conditions to which all public projects must adhere. The Regulations set out guidelines on processes, deadlines and the use of standard contract terms designed to ensure predictability and equal treatment of tenderers, and stipulate that 'Every procurement shall, as far as possible, be based on competition regardless of the procurement

procedure'. *These requirements place few restrictions on the freedom to design a contract strategy tailored to the organisation and the individual project.*

As regards the organisation's requirement to use standard contracts with standardised terms and fixed evaluation criteria, this may be appropriate for smaller and simpler projects, as it keeps transaction costs to a minimum. There will also be advantages to this, as the parties are familiar with the division of responsibilities and tasks and the contract's regulatory mechanisms. Even for simpler projects, there will be a need for a tailored contract strategy. There will be specific factors of significance for the choice of contract form/terms, evaluation criteria and contractual management tools. A standard model cannot therefore be regarded as universally applicable. A set of alternative models must be available, and there will still be a need for a specific contract strategy that sets out the selection and use of risk mitigation mechanisms.

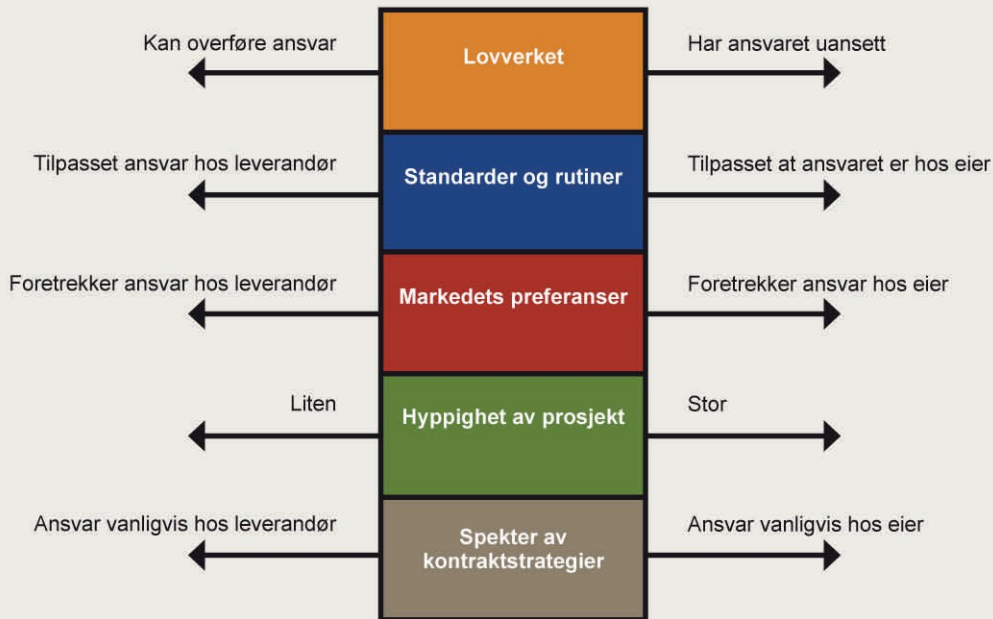
For larger or more complex projects, project-specific adaptations of contract clauses, compensation formats, incentives and evaluation criteria may be appropriate.

Figure 1 illustrates one way of summarising the factors that should be described in a general contract strategy.

¹ The terms Principal/Agent, Client/Contractor, Customer/Supplier, Developer/Contractor and Commissioning Authority/Contractor are synonymous.

² Relevant measures to maintain or increase competition in the market.

Figur 1. Forhold i en generell kontraktstrategi (Freely adapted from Lædre 2006³)



3. Specific contract strategy

Each individual project will have distinctive features that must be set out in a specific contract strategy. The specific contract strategy shall govern the matters relating to a single contract. It shall build upon the matters governed by the general contract strategy, and an explanation should be required whenever the specific contract strategy deviates from the general one.

The characteristics of the project, the market situation and the contracting parties that will influence the formulation of the specific contract strategy:

- The project's overall objectives
- The project's framework conditions
- The scope of the task
- The complexity of the task
- The criticality of the task
- Market uncertainty
- Competitive landscape
- The owner's expertise and capacity
- The supplier market's expertise and capacity

- The parties' ability to manage risk
- The parties' ability to manage interfaces.

These factors will determine the choice of:

- Contract structure
- Contract type
- Allocation of responsibility
- Compensation format
- Change management
- Incentives
- Safeguards
- Requirements specifications
- Level of detail
- Evaluation criteria
- Procurement process.

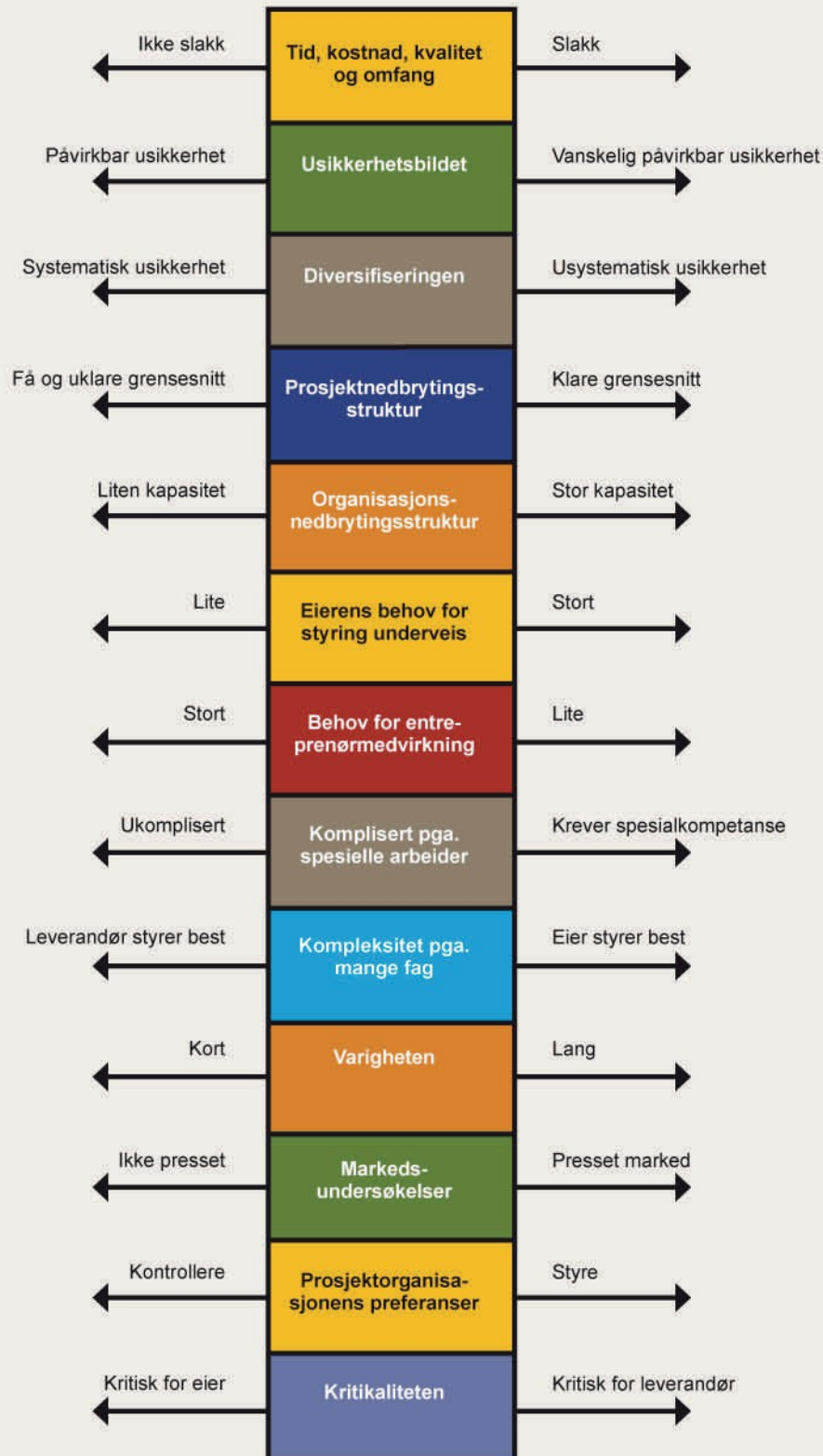
The following chapters will describe the trade-offs involved in these choices in more detail.

³ PhD thesis: 'Choice of contract strategy in construction and civil engineering projects' Ola Lædre 2006

The specific contract strategy must also be aligned with the project's breakdown structure and organisation. In this context, a specific contract strategy may be chosen that governs these factors to the same extent as the reverse is true.

Figure 2 illustrates one way of summarising the factors that should be described in a specific contract strategy.

Figur 2. Forhold i en spesifikk kontraktstrategi (Lædre 2006)



4. Critical individual assessments

4.1 CONTRACT STRUCTURE

The implementation strategy, and consequently the contract structure, is usually divided according to one or more of the following parameters and combinations thereof:

- **Phase:** Contract division according to the main phases or main activities in the implementation, for example design, procurement, construction, installation and testing.
- **Discipline:** Contract division according to discipline, for example, building, M&E, electrical, telecommunications.
- **Physical division:** Division according to sub-project, product type or geography, for example sub-projects, different buildings, plots or modules.

It is primarily the nature and scope of the project that should determine the appropriate contract structure. It is nevertheless important to balance this against:

- **The complexity and criticality of the task.**
Does the desired structure help to reduce the complexity of the project? Will it be possible to describe tasks clearly and unambiguously? Are critical areas visible and easy to focus on?
- **The current competitive landscape.**
Will the desired division appeal to the market in such a way as to ensure healthy competition? Is the structure appropriate in relation to the preferences of the supplier market?
- **The owner's/supplier market's expertise and capacity.**
Does the proposed structure reflect the actual distribution of expertise? This applies both in the market and internally within relevant suppliers. Will suppliers have the capacity in all the areas assigned to them by the proposed structure?

- **Interfaces.**

Where will key interfaces be established? Who will have the expertise to take responsibility for monitoring these?

- **Risk management.**

Will the chosen structure allow risks to be assigned to the party with the greatest ability to influence the outcome? Can risks that cannot be influenced be managed, i.e. assigned to the party with the greatest capacity to bear them within the desired structure?

If a piece of work is divided into several contracts due to an anticipated competitive situation, it will usually be appropriate to include an option for suppliers to tender for several jobs collectively (with a discount for economies of scale), in the event that the competitive situation turns out to be different from anticipated. Such a real option costs little but can yield significant gains.

4.2 CONTRACT TYPE

The assessment of contract structure is closely linked to the assessment of contract type. The choice of contract type influences the allocation of scope and also has implications for possible choices regarding the division of responsibility and the use of compensation mechanisms. There are a number of types of contract, but broadly speaking they can be divided into two groups:

- Phased contracts
- Comprehensive contracts.

The characteristics and key considerations when making a choice are summarised in bullet points in Table 1.

Tabell 1. Fasedelte og helhetlige kontrakter (Berntsen 2004⁴)

Fasedelte kontrakter (E+P+C+I)	Helhetlige kontrakter (EPCI/EPC)
General Contractor, Multiple Primes, Management Contractor (eng), Generalentreprise, Byggherrestyrte entrepriser, Hovedentrepriser, Sideentrepriser, Tiltransporterte underentrepriser (no).	Turnkey, Design & Build (eng), Totalentrepriser (no). Samarbeidskontrakter – Project alliances, Joint Ventures (eng), Prosjektallianser, Leverandørallianser (no).
• Kundeinvolvering og -påvirkning gjennom alle faser • Fleksibilitet mht. gjennomføring og design • Høy definisjon pr. fase.	• Kundedefinerte funksjonskrav og leverandørkonsept • Helhetlig ansvar for prosjektering, innkjøp, bygging, installasjon og uttesting.
• Krever at kunden er best i stand til å koordinere prosjektet, styre grensesnitt og påta seg risiko.	• Krever god definisjon av funksjonskrav, og at kunden ikke involverer seg i leverandørens utførelse av oppdraget.
Hensiktsmessig ved: • Behov for fleksibilitet • Begrenset konkurranse (kapasitet, kompetanse og finansiell styrke) • Utilstrekkelig konkurranse for viktige deler av arbeidsomfanget • Høy risiko ved gjennomføringen av prosjektet.	Hensiktsmessig når: • Funksjonskrav er godt definerte • Teknisk konsept er utviklet av leverandør • Majoriteten av arbeidet utføres av leverandøren selv • Markedet har kapasitet, kompetanse og finansiell styrke • Konkurranse for alle vesentlige deler av arbeidet • Tiltrekke internasjonale markeder.
Virkninger • Redusert ansvar for fremdrift, kvalitet og garantier • Høyere gjennomføringstid og investeringskostnad • Mange kontraktsmessige grensesnitt • Ingen incentiver for samarbeid mellom leverandører • Mulighet for lavere driftskostnader • Design må generaliseres for å tilpasses flere tilbydere • Design må tilpasses flere byggemetoder.	Virkninger • Enhetlig ansvar for fremdrift, kvalitet og garantier • Lavere gjennomføringstid og investeringskostnader • Få kontraktsmessige grensesnitt • Incentiv for helhetlig samarbeid • Risiko for høyere driftskostnader • Design detaljeres kun for produksjon • Design kan spesialtilpasses egen byggemetode.

In many projects, a combination of these contract types may be used, for example where parts of the project are carried out under a design-build contract, whilst other parts are carried out under phased contracts. In such

should, in such cases, be justified on the basis of differing suitability in relation to the areas described in the table above.

⁴ Previous edition presented to Statsbygg on 30 April 2004

4.3 COMPENSATION FORMAT

All compensation formats have a number of incentives naturally associated with them. To illustrate this, Table 2 describes some characteristics of what might be termed the basic compensation formats.

Pure price contracts are shown on the left and pure cost contracts on the right of the table. The incentives here apply at contract level.

In addition, there are a number of variants that place greater emphasis on cooperation and shared objectives. Some of these are:

- Fixed target sum: Similar to a fixed price, but with a cap on the supplier's risk
- Floating target sum: Similar to a unit price, but with a cap on the supplier's risk
- Joint venture: Several parties join forces to form a separate company with a joint contract
- Incentives based on cost, life-cycle cost or profitability
- BOOT, OPS, PPP: Fixed annual payment or the right to collect revenue over an agreed period. Incentives linked to profitability.

4.4 CRITICALITY OF INDIVIDUAL CONTRACTS

To assess the contract strategy for an individual contract, it is important to assess how critical the contract is to achieving the project's objectives, and how the quality of its execution – whether good or poor – will affect the project's total costs, life-cycle costs and benefits or revenue.

A classic example of a contract which, in itself, involves limited costs but which can have a major impact on benefits, life-cycle costs and project costs is a design contract. In such a case, the supplier should have incentives linked to the aforementioned factors, rather than to the contract cost itself. Such types of incentives are described in more detail below.

4.5 INCENTIVES AND SAFEGUARD MECHANISMS

In relation to a profitability hierarchy, incentives can be defined at the following levels. Some typical examples of incentives are included for each group:

- Profitability (Joint Venture, PPP, payment in the form of equity)
- Lifetime costs (quality bonus, contract including operational period)
- Project cost (bonuses linked to other contracts, daily penalties)
- Contract cost (fixed price, unit price, target sum).

Tabell 2. Grunnleggende kompensasjonsformater (Berntsen 2004)

Valgkriterier	Fast Pris	Enhetspris	Timerate	Regningsarbeid
Prosjektdefinisjon	Høy	Middels	Lav	Lav
Kundeinvolvering	Ingen	Ingen	Høy	Høy
Markedets kapasitet og kompetanse	Høy	Høy	Lav	Lav

Kompensasjonsformat	Fast Pris	Enhetspris	Timerate	Regningsarbeid
Kunde har risiko for riktigheten av	N/A	Mengder	Mengder Normer	Mengder Normer Rater
Leverandør har risiko for riktighet av	Mengder Normer Rater	Normer Rater	Rater	N/A
Risiko for kontraktsmessig konflikt	Høy	Middels	Lav	Lav
Leverandørs insentiv for kostnadseffektivitet	Positiv	Positiv	Negativ	Negativ
Leverandørs insentiv for løsnings effektivitet	Høy	Lav	Lav	Lav
Kundens kvalitetsrisiko	Høy	Høy	Lav	Lav

The assessment of the criticality of each individual contract should form the basis for the choice of incentives. Where multiple incentives are used (almost always), the size of the incentives must be carefully balanced against one another, so that one does not cancel out the other. This naturally also applies in relation to the inherent incentives of the compensation formats.

Bonuses or penalties may be linked to milestones or the final outcome. It is a challenge to ensure that such mechanisms function effectively. Linking incentives to final results and aggregate project objectives is often easier to administer than linking them to interim targets. If incentives are linked to milestones, the risk of sub-optimisation must be clarified and the need for corrective measures described. It is important that such mechanisms are built in at the right time and allocated to the parties in such a way that those with the greatest influence receive a genuine incentive. The scale of the incentive mechanism must be balanced against the parties' ability to influence outcomes and commercial considerations, such as financial capacity. The establishment of incentive mechanisms must be reflected in other contractual provisions so that requirements for measurability and predictability are met.

When designing incentives and safeguard mechanisms, particular emphasis should be placed on the fact that the relative balance of power between the contracting parties changes over the course of a contract period. Before and immediately after the award, the owner is often the stronger party, whilst power is gradually transferred to the supplier, who by the end of the contractual relationship may have become the stronger party. In this phase, the owner is often vulnerable to delays

or other circumstances that place the supplier in a favourable negotiating position. The actual scope for the transfer of liability is therefore often less than that set out in the formal agreement. In exceptional cases, the relative balance of power may develop differently from that described here.

4.6 QUALIFICATION REQUIREMENTS AND AWARD CRITERIA

The contract strategy must include a reasoned choice of tender procedure in accordance with the 'Regulations on Public Procurement', including qualification requirements for suppliers and award criteria for the specific contract. The requirements for suppliers are often linked to financial soundness, as well as technical and operational competence. Criteria for selecting a tender may include:

- Lowest price
- Most economically advantageous tender.

When selecting the 'most economically advantageous tender' as the award criterion, in addition to price, weight may also be given to quality, implementation capacity, aesthetic and functional characteristics, delivery capability and a number of other relevant factors.

5. Challenges arising from market imbalances

The preceding chapters describe the key considerations that must be taken into account when developing a contract strategy for project portfolios, several of which are directly or indirectly linked to the market. It may therefore be appropriate to examine more closely certain characteristics of markets where supply and demand are significantly out of balance over a certain period:

- The owner's attractiveness as a customer changes
- The attractiveness of individual projects changes
- The market's pricing of commercial risk changes
- The market's pricing of interface costs changes
- The market's pricing of opportunity cost changes
- The market is restructured

In such a situation, there will be an increased need to manage projects at portfolio level with a view to influencing aggregate demand and adapting the overall contracting strategy to the market.

It is reasonable to assume that the state as a whole is such a major player that it can influence aggregate demand in some markets. The same applies to the largest government agencies with projects in the construction sector, within specific market segments or geographical areas. The same may also apply to agencies with projects in other sectors, but this is less certain.

6. The strategy development process

The formulation of contract strategies involves weighing up trade-offs and is an iterative process that draws on most disciplines, ensuring that all technical, organisational, commercial and governance aspects are addressed in the best possible way.

It is therefore not appropriate to regard it as a sequential task in which decisions are made in a specific order. It may also be appropriate to have different sub-strategies for different parts of a project.

Nevertheless, it is recommended to use a 'top-down' approach, in which overarching objectives, framework conditions and strategic choices for the implementation of the project are analysed before the strategy for the individual contract is determined.

Management towards impact targets, prioritisation between performance targets, technology, market expertise, market capacity, financing, implementation strategy and a strategy for managing uncertainty are examples of factors that must be weighed up against one another.

On the basis of these considerations, the contract structure can be outlined, taking into account the criticality of each individual contract, an overall assessment of the incentives that will be required, and a preliminary choice of contract type.

Subsequently, the compensation structure, incentives and safeguards for each individual contract can be outlined, and the selection of qualification requirements and award criteria assessed.

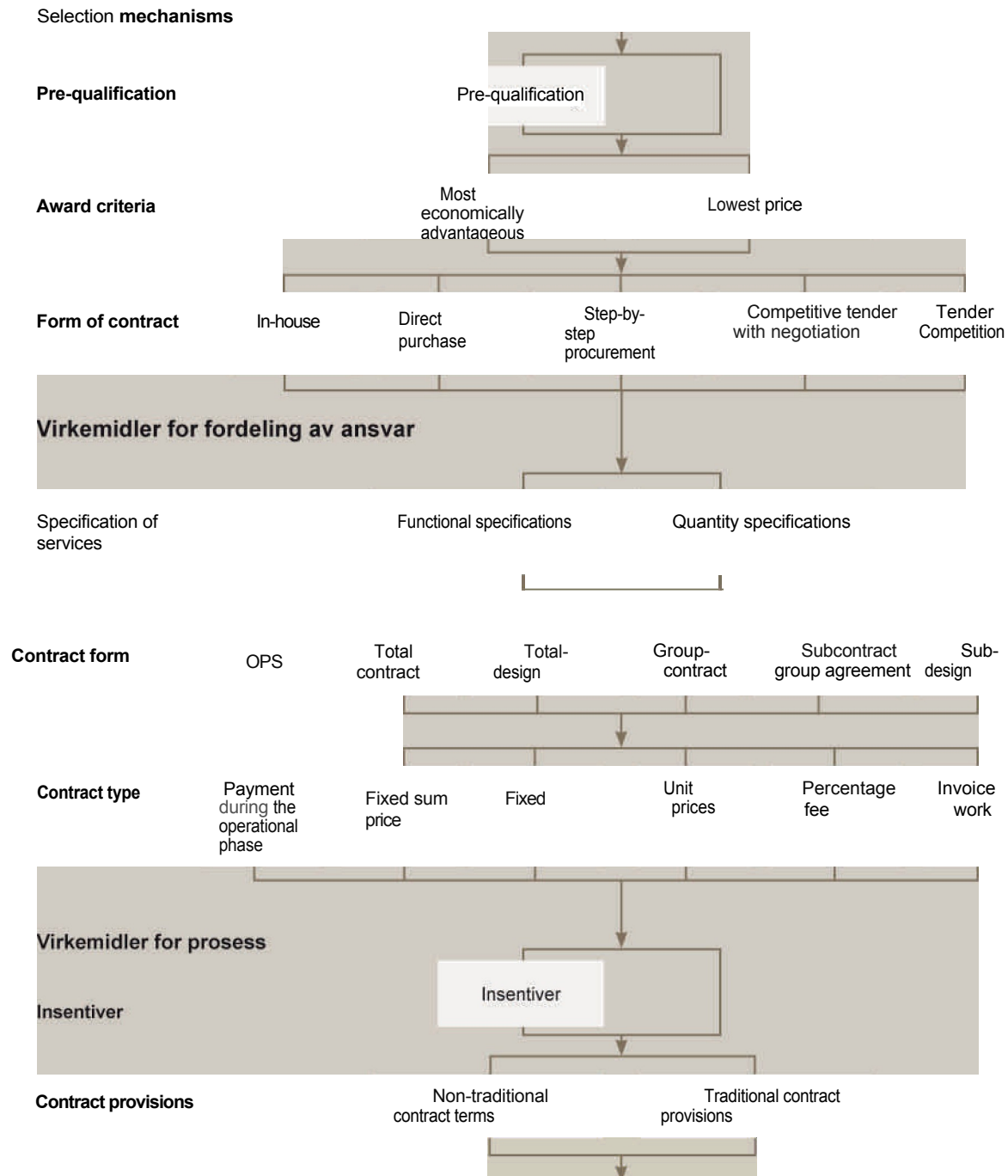
The factors described above must usually be assessed in relation to one another, using both 'top-down' and 'bottom-up' approaches, before a contract strategy can be finalised. A well-developed contract strategy will be robust in terms of its main principles, yet flexible enough to allow for adjustments to the details should circumstances during the course of the project so require.

The strategy development process usually begins in the earliest phases of the project, when the client sets out guidelines for the design and construction phases. At this stage, it is possible to choose from most contract strategies. Thereafter, the scope for choice is rapidly restricted as the project progresses.

An example of a strategy development process is shown in Appendices 1 and 2. It is taken from a typical building and civil engineering project and illustrates the processes for the design through to the construction phases. The terminology and process are typical of the industry and are not directly transferable, but the main principles should nevertheless be applicable in other sectors as well.

Appendix 1 Example of a process for the design phase

Figure 4. The contract strategy for the design phase is determined by the selection mechanisms, the mechanisms for allocating responsibility and the process mechanisms (Lædre 2006)



Appendix 2 Example of a process for the implementation phase

Figure 5. The contract strategy for the implementation phase is determined by the selection mechanisms, the mechanisms for allocating responsibility and the process mechanisms (Lædre 2006)

Selection mechanisms

Pre-qualification

Pre-qualification

Award criteria

Most economically advantageous

Lowest price

Form of contract

In-house

Direct purchase

Competitive tendering with negotiation

Tender competition

Virkemidler for fordeling av ansvar

Service specifications

Functional specifications

Quantity specifications

Contract type

PPP

Turnkey contract

General contract

Main contract

Split contracts

Contract type

Payment during the operational phase

Fikssum

Fixed-price

Total contract

Unit price

Cost-plus work

Virkemidler for prosess

Insentiver

Insentiver

Contract provisions

Non-traditional contract terms

Traditional contract provisions