Contracting in urban public transport

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1 Introduction

A note on the diversity of organisational forms in public transport in Europe

The way public transport is organised varies considerably from country to country, and even from city to city. Numerous aspects come into play: the way national and local authorities divide regulatory powers upon public transport, the way public transport financing is organised, the ownership and structure of transport operators, the nature of the relationship between authorities and transport operators, the way to establish this relationship, the possible usage of competitive mechanisms as part of a regulatory regime, etc.

The organisation of local and regional public transport in Europe was been submitted to considerable changes during the last two decades. A main trend in number of countries and cities is the growing usage of contracting. However, contracting can indeed take many forms, as many kinds of relationships are possible between transport authorities and transport operators.

Another feature of the last two decades is the growing usage of some form of competition in the award of operational right to operators. This can, broadly speaking, be classified under the headings of 'competition *on* the road' and 'competition *off* the road' but the actual organisational forms implemented in various countries exhibit much more variety than suggested by this division. While operators can develop services as they like under the regime of 'competition *on* the road', transport authorities, on the contrary, can to prescribe which services have to be produced under regimes using 'competition *off* the road'. Such regimes, however, vary considerably in their implementation, from fully prescribed timetables at one extreme, to functionally described service levels at the other extreme.

Besides awarding mechanisms based upon competition, there are too numerous cases of direct award to public operators. Here too, relationships between transport authorities and operators have evolved, and it has become growingly common to encounter clear contracting agreements and monitoring schemes evaluating performances delivered in exchange for public support in such relationships.

Contracts

Several kinds of legal features can govern the relationship between transport authorities and transport operators. Licences, authorisations, concessions, contracts, etc. are examples of such relationships. The legal frameworks of the various member states are determinant in the shaping of such relationships.

Furthermore, it is important to realise that the exact legal meaning of words such as 'concession' or 'licence' varies considerably from legal regime to legal regime to cover widely divergent regulatory concepts.

For the purpose of this study, we will use the word 'contract' in a broad sense. It is therefore important to note that a 'contract' in the context of this study is not only a contract in the classical legal definition (i.e. a written document confirmed by both contractual parties by signature). This study uses a much wider definition of contract, including both this classical legal definition and all other legally binding acts confirming some form of agreement between the acting parties (authority and operator).

This wide usage of the word 'contract' is the same as that used in the definition by the Regulation on public service obligations (Art. 2 (i)):

> *"Public service contract" means one or more legally binding acts confirming the agreement between a competent authority and a public service operator to entrust to that public service operator the management and operation of services subject to public service obligations; depending on the law of the Member States, the contract may also consist of a decision adopted by the competent authority:*
> - *taking the form of an individual legislative or regulatory act, or*
> - *containing conditions under which the competent authority itself provides the services or entrusts the provision of such services to an internal operator.*

Regulation on "Public Service Obligations" in public passenger transport

This document will, when useful, refer to the text of the "*Regulation (EC) No 1370/2007 of the European Parliament and of the Council of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC) Nos 1191/69 and 1107/70*". When referring to this regulation, we will use the abbreviation "PSOR" for "Public Service Obligation Regulation".

The purpose of the PSOR is to determine how competent authorities may act in the field of public passenger transport to guarantee the provision of services of general interest. The PSOR lays down the conditions under which competent authorities, when imposing or contracting for public service obligations, compensate operators for the costs incurred and/or grant exclusive rights in return for the discharge of public service obligations. The PSOR shall apply to the national and international operation of public passenger transport services by rail and other track-based modes and by road (see Art. 1 PSOR).

Structure of the report

This report will provide a number of tools to facilitate the comparison of various organisational forms. This will help understanding the complexity of contracting practices in European public transport. Such compari-

son may then be the source of mutual learning and improvement. This report will also provide general guidance and advice as to the development and awarding of contracts to operators of public transport services.

This report is composed of two main parts:

- Part I: Analysis of contractual practices
- Part II: Guidebook

Part I

Part I of this document presents and classifies existing contracting practices, paying specific attention to the issue of the risks assumed by operators and authorities in terms of costs, revenues and investments.

This study is based upon a European-wide collection of representative contractual practices. Chapter 2 provides a general presentation of the contracts covered by the study, presenting the name of the urban area concerned, the type of contractual relation, the size of the urban area, the transport modes concerned, the awarding procedure and the type of risk allocation. Each contract analysed is presented in more detail in standardised tables, the collection of which is included in an appendix to this report. Chapter 3 summarises the contractual practices into a matrix of characteristics using two main dimensions from the point of view of the European legal context: risk allocation and award procedure.

As a conclusion to Part I, Chapter 4 then provides an overview of the main directions of change in contracting that could be witnessed in Europe during the last 15-20 years.

Part II

The second part of this document is a guidebook for contracting and awarding. It is based upon and refers to the collected experience presented in Part I.

Part II is organised around the chronological steps that authorities follow when determining transport policy goals and engaging into contractual relationships with transport operators in view of realising their policy goals.

PART I: Analysis of contractual practices

2 General presentation of the cases

This study is based upon the collection of a wide variety of contractual practices currently used across Europe. 35 cases have been selected for the purpose of this study. While this set of contracts cannot pretend to cover extensively all contractual practices that can currently be encountered in Europe, it does, nevertheless, cover most well established practices and it does this across a wide range of countries.

The selected set of contracting practices covers:

- Public service obligation contracts with public operators (self-production or in-house operators);
- Competitively tendered route contracts with central planning of the services;
- Competitively tendered authorisations for route contracts;
- Competitively tendered network management contracts;
- Functional tendering of network contracts;
- Private concessions including infrastructure;
- Open entry regimes with additional quality partnerships; and
- Supply of non-commercial routes by competitive tendering in addition to a commercially viable deregulated market.

Specific information was collected on the contracting practices in the urban areas selected. This was done by collecting extensive source material such as contracts and other documents directly through the transport authorities or operators concerned and/or through unions of authorities or operators. In addition to this, interviews were used to clarify contracting practices and their evolutions. A detailed presentation of the set of contracts studied is given in standard tables included in a separate document.

Table 1 presents succinctly the set of contracts analysed by indicating:

- The name of the urban area concerned,
- The type of contractual relation,
- The size of the urban area (small, medium, large),
- The modes concerned (bus, tram, metro),
- The awarding procedure (direct or competitive),
- The risk allocation to the operator (cost risk, revenue risk and additional incentives).

Table 1 Selected set of contracting practices

	Size of urban area			Modes concerned			Award procedure		Risks allocated to the operator		
	Small	Medium	Large	Bus	Tram	Metro	Direct	Competitive	Costs	Revenues	Other incentives
Amsterdam (NL) Direct award to public operator with competitive threat			X	X	X	X	X	X	X	X	X
Barcelona (E) Direct award to public operator			X	X		X	X		X	X	
Brussels (B) Direct award to public operator			X	X	X	X	X		X	X	X
Budapest (H) Direct award to public operator			X	X	X	X	X		X	X	
Krakow (PL) Direct award to public operator without exclusivity			X	X	X		X		X		X
Dijon (F) Tendered network management contract		X		X				X	X	X	X
Dublin (IRL) Tendered route contract with incentives (tramway)			X		X			X	X		X
Elmshorn (D) Functional tendering of network contract	X			X				X	X		X
Frankfurt/M. (D) Tendered route bundle contracts			X	X				X	X		X
Gifhorn 1 (D) Sub-contracting by a public operator	X			X				X	X		

	Size of urban area			Modes concerned			Award procedure		Risks allocated to the operator		
	Small	Medium	Large	Bus	Tram	Metro	Direct	Competitive	Costs	Revenues	Other incentives
Gifhorn 2 (D) Competition for market-initiated authorisations	X			X				X	X	X	
Grenland (N) Tendered network contract with super-incentives	X			X				X	X	X	X
Haarlem (NL) Functional tendering of network contract		X		X				X	X	X	X
Halmstad (S) Tendered network contract with additional incentives	X			X				X	X		X
Innsbruck (A) Direct award to reorganised public operator		X		X	X		X		X		
Leeds (GB) Quality partnership within free market		X		X				-	X	X	
London (GB) Tendering of gross-cost bus route contracts			X	X				X	X		X
London (GB) Tendered gross-cost contract (rail) with incentives			X			X		X	X		X
Lyon (F) Tendered network management contract			X	X	X	X		X	X	X	X
Manchester (GB) Tendering non-commercial routes within free market		X		X				X	X	X	

	Size of urban area			Modes concerned			Award procedure		Risks allocated to the operator		
	Small	Medium	Large	Bus	Tram	Metro	Direct	Competitive	Costs	Revenues	Other incentives
Munich suburbs (D) Tendering of route contracts		X		X				X	X		X
Oviedo (E) Tendered network contract	X			X				X	X		X
Parla/Madrid (E) Tramway concession (including building)		X			X			X	X	X	X
Porto (P) Metro concession (DBFO)			X			X		X	X	X	
Prague (CZ) Direct award to public operator			X	X	X	X	X		X	X	
Rome (I) Direct award and partial tendering			X	X	X	X	X		X	X	X
Santiago de Comp. (E) Tendered network contract		X		X				X	X	X	X
Sondrio/Lombardy (I) Tendering of route bundles	X			X				X	X	X	
Stockholm (S) Tendered route bundles gross-cost contracts			X	X	X	X		X	X		X
Sundsvall (S) Tendered net-cost network contract	X			X				X	X	X	X

	Size of urban area			Modes concerned			Award procedure		Risks allocated to the operator		
	Small	Medium	Large	Bus	Tram	Metro	Direct	Competitive	Costs	Revenues	Other incentives
Trieste (I) Tendered network contract		X		X				X	X	X	
Warsaw (PL) Tendering of route contracts			X	X				X	X		
Wittenberg (D) Competition for market-initiated authorisations	X			X				X	X	X	X

3 Matrix of characteristics

The elements presented above can be summarised into a matrix of characteristics. An analysis of contracting practices includes several dimensions, which makes a graphical presentation complex. The following table is therefore based upon the two most relevant dimensions seen from the point of view of the European legal context. These are risk allocation and award procedure.

The **risk allocation** dimension distinguishes between the allocation of the following risk(s) to the operator:
- no risk,
- only the production cost risk or
- both the production cost and the revenue risks.

The **awarding procedure** dimension distinguishes between:
- direct awarding and
- awarding based on a competitive procedure, this option being further divided into a negotiation-based award and a (multi-)criteria awarding.

These classifications correspond to those used for the analysis of contracts. The contract set analysed within this study is presented within this table, illustrating the variety of practices existing at the European level. Further details are also given for each contracting practice represented in this table. This includes:
- The size of the urban area concerned; note that contracts can be small in size although the urban area considered can be large, e.g. route bus contracts in London;
- The modes concerned: B for bus, T for tram and M for metro;
- The level of service design freedom: constructive, negotiated or functional, given to the operator during the contracting phase (before the '/' marker in the table) and during the contract realisation phase (after the '/' marker in the table).[1]

Important notes

It is not always possible to allocate a contracting practice strictly to one or the other box in the table because of the complexities of real-world contracting and awarding practices. A few examples are:
- the existence of additional incentive mechanisms such as ridership-based incentives (but not revenue-based incentives) in some gross-cost contracts, or
- an awarding procedure based upon a mathematical multi-criteria analysis but followed by negotiations, or
- a direct award procedure under competitive threat, etc.

[1] See Part II (Guidebook) of this document for more details on these concepts.

This table is therefore meant as an overview of contracting and awarding practices. The reader is referred to the contract tables (see the appendix to this study) for more details on each contract.

Another important remark concerns the real incentivising power of a contract versus its mere content. This is especially relevant in case of publicly owned operators. We may distinguish two extreme cases here:

- When service supply and financial compensation are exclusively organised through the contract (i.e. when the authority treats its operator as if it were a fully independent private operator, does not intervene in operational decisions, does not provide additional capital in case of financial problems and would actually accept that the public operator go bankrupt), then the effect of the contract may be very similar to what would have been the case when contracting with a fully independent operator.
- On the contrary, when the authority also influences management decisions of the operator (such as service supply) through its position as owner of the company, or when it accepts to take over financial deficits that the public operator incurs (above contractual compensation) or, alternatively, when the authority does not fulfil its contractual duties in terms of financial compensation for services ordered, then the contract text and its incentivising power tend to remain a pure formality.

Therefore, and especially in the case of in-house operators, it will be the *conduct* of the owning-authority in the case of problems that will determine whether risks are ultimately and effectively allocated to the operator and its management, or whether – in the end – it is the authority that continues to bear all or most risks.

Table 2 Risk allocation and awarding: overview of cases

See the legend above before reading the table!

			Risk Allocation to the operator		
			Limited risks	**Production cost risk**	**Production cost risk and revenue risk**
Awarding	**Direct award to publicly-owned operators**		♦ **Prague** Large BTM Negotiated / Negotiated	♦ **Krakow** Large BT Constructive / Constructive ♦ **Innsbruck** Medium BT Constructive / Constructive ♦ **Rome** Large BTM Negotiated / Negotiated	♦ **Amsterdam** Large BTM Negotiated / Negotiated ♦ **Barcelona** Large BM Negotiated / Negotiated ♦ **Brussels** Large BTM Negotiated / Negotiated ♦ **Budapest** Large BTM Negotiated / Negotiated
	Competitive award to independent operators	**According to negotiated procedure**		♦ **Dublin** Large T Constructive / Negotiated ♦ **Gifhorn 1** Small B Constructive / Constructive ♦ **London Bus** Large B Constructive / Constructive ♦ **Oviedo** Small B Constructive / Negotiated	♦ **Dijon** Medium B Negotiated / Negotiated ♦ **Gifhorn 2** Small B Negotiated / Negotiated ♦ **London DLR** Large T Constructive / Functional ♦ **Lyon** Large BTM Negotiated / Negotiated ♦ **Parla** Medium T Constructive / Negotiated ♦ **Porto** Large M Constructive / Negotiated ♦ **Santiago** Medium M Negotiated / Negotiated ♦ **Trieste** Medium M Constructive / Functional
		According to multi-criteria procedure		♦ **Elmshorn** Small B Functional / Negotiated ♦ **Frankfurt** Large B Constructive / Constructive ♦ **Halmstad** Small B Constructive / Constructive ♦ **Munich sub** Medium B Constructive / Constructive ♦ **Stockholm** Large B Constructive / Constructive ♦ **Warsaw** Large B Constructive / Constructive	♦ **Grenland** Small B Functional / Functional ♦ **Haarlem** Medium B Functional / Functional ♦ **Manchester** Medium B Constructive / Constructive ♦ **Sondrio** Small B Functional / Negotiated ♦ **Sundsvall** Small B Constructive / Functional ♦ **Wittenberg** Small B Functional / Negotiated

Note: The Leeds (GB) 'quality partnership' case cannot be represented in this table. See the appendix for more details on this case.

4 Typical organisational forms and their main evolutions

This chapter aims at providing an overview of the main *directions of change* that could be witnessed in Europe during the last 15-20 years, referring to concrete cases from the sample studied.

These experiences are grouped here into illustrative typical regimes, using a simplified graphical representation of those typical regimes. We can distinguish between four main groups of organisational forms:

- In-house operations;
- Route contracting under competition;
- Network contracting under competition and
- Deregulated regimes (free market initiative with additional contracting).

4.1 Introduction

Public transport is a service provided on a market; i.e. there is a supply, there is a demand and there is a price to be paid to use the service – even if this price is low or subsidised. However, observing practices in European and their evolutions of the last 15-20 year, we can observe a large variety of organisational forms. Here are a number of dimensions in which these vary:

- Similarly to other markets for goods or services and whatever the legal and regulatory setting, a number of decisions have to be made before passenger transport services can actually be produced and sold: what is the aim of providing the service? what are the characteristics of the service to be produced? and how to produce it? The entities in charge of each of these decisions and actions vary considerably from one country to the other, even from one city to the other: authorities, cooperations, operators, etc.
- There are also differences in allocation of responsibility according to the moment considered. The authority may, e.g., be in charge of specific choices at the moment of contracting, while the operator will be in charge of those decisions during the contract.
- Furthermore, there may be differences between, on the one hand, the possibilities and incentives that the authority or operator have to come up with new service ideas and, on the other hand, the autonomy allocated to them to actually decide autonomously on the production of those services.
- The actors involved (authorities and operators), their number and the way in which they come to play all depend on the organisational form in place. In some cases all actors are part of the same organisation or company (self-production case), in other cases contractual relationships exist and the actors involved are part of different organisations or companies ('in-house' operator and similar cases). Organisational forms and the relationship between their actors can become very complex to comprehend.

While presenting main evolutions that took place over the last 15-20 years, this chapter provides also a graphical help to distinguish the main features of these organisational forms.

Key for reading the graphs in this chapter

The various elements of the graphics used in this chapter should be read as follows:

- The first row of each figure indicates which actors are involved in the organisational form described. The nature of each actor is given below its general name.
- The second row of each figure indicates by arrow-shaped blocks which control relationship there is between the actors involved.
- The lower part of each figure indicates which decision power is allocated to the various actors presented in the first rows of the graphs by positioning each decision below the responsible actor. The decisions are grouped according to three levels: strategic, tactical and operational (this concept is also used further in the report; see section 5.3.1 for a more detailed presentation). A white block indicates that the actor under which the block falls is the main or sole responsible for that decision. A shaded block indicates that the actor concerned has some decision power on the item, or is allowed to make suggestions. Texts between brackets and within shaded blocks indicate the type of influence given to the actor considered[2].
- Text located vertically indicates the instrument or awarding mechanism used to put in place the relationship represented in the second row of the figure.

Note that the graphical presentations given here are simplifications of the real world. They are provided here only for illustrative purpose.

4.2 In-house operations

Description

In-house operators or publicly owned operators benefiting from historical rights are a widespread feature of urban public transport in Europe. It should be noted, though, that their legal background could be very different.

The existence of publicy-owned operators can, from a legal point of view, be based upon a monopoly of public transport provision given to the authority by national (or regional) legislation. Alternatively, it could be based upon a temporary (exclusive) right granted to an operator who happens to be publicly owned for historical or other reasons. The publicly owned company has in the first case a *de jure* monopoly position, while in the second case it has a *de facto* monopoly position. Seen from a

[2] The following examples are used in the tables (between quotes here): the ability to 'discuss', to make 'proposals', to set 'minimum standards' by means of contract, to create fare 'rebates', to impose vehicle 'accessibility standards', to require service 'co-ordination' and to require service 'publication'.

dynamic point of view, the monopoly position of the public company in the second case is conditional upon the validity period of the (exclusive) right and upon the existence of specific protective regulations pertaining to the re-allocation of such rights at the end of their period of validity. In this sense, an entry threat at the moment of the renewal of the right cannot legally be ruled out. In the first case, on the contrary, no entry threat legally exists.

This can be illustrated by comparing the legal position of the French publicly owned transport companies (*Régies* and assimilated) and the position of the German publicly owned transport companies (*Stadtwerke* and assimilated). The French public transport law (outside the Paris region), which is based upon the principle of authority initiative, gives the transport authority the first right to create passenger transport services. In doing this it also gives the authority the right to decide whether these services will be provided directly by the authority (own production or own company with specific public status) or whether the services will be delegated to a different manager (using a specific awarding procedure). The German public transport law, which is based upon the principle of market initiative, gives the first right to create passenger transport services to any operator in the market, but submits this right to an authorisation procedure. This does not give any specific legal right of first initiative to authority owned companies.

Both regimes, when dominated by authority-owned companies, are often confused as in both cases one publicly owned company provides all services. They are however legally speaking fundamentally different and this is crucial when reforms are being considered (e.g. the introduction of new contracting and awarding mechanisms) as it determines the way in which and the ease with which reforms can be implemented.

Evolutions

Observing evolutions over the last 20 years, one can see that 'simple' self-provision by the public administration (i.e. within the municipal administration and under direct responsibility of the Mayor) have become less frequent. Many of those cases were not based upon any form of contractual relationship, except within legal regimes based upon market initiative where such public operators were submitted to a temporary exclusive right (authorisation procedure) although benefiting, in many cases, from a preferential right ('grandfather's right') when renewing the authorisation.

Main aspects of the evolutions of this set of organisational forms are:

- The corporatisation of the passenger transport unit of the authority into an 'in-house' operator;
- The introduction of a contractual relationship between the owner and/or transport authority and the in-house operator;
- The explicitation of policy and contractual aims within contractual texts;
- The determination of ex-ante lump-sum subsidy amounts to replace the former ex-post deficit compensation;

- The gradual introduction of incentivising mechanisms linked to the realisation of policy and contractual targets;
- In some cases, even the usage of some form of competitive threat.

Examples of such practices and evolutions can be seen, in different stages of implementation, in Brussels, Budapest, Krakow, Barcelona or Amsterdam.

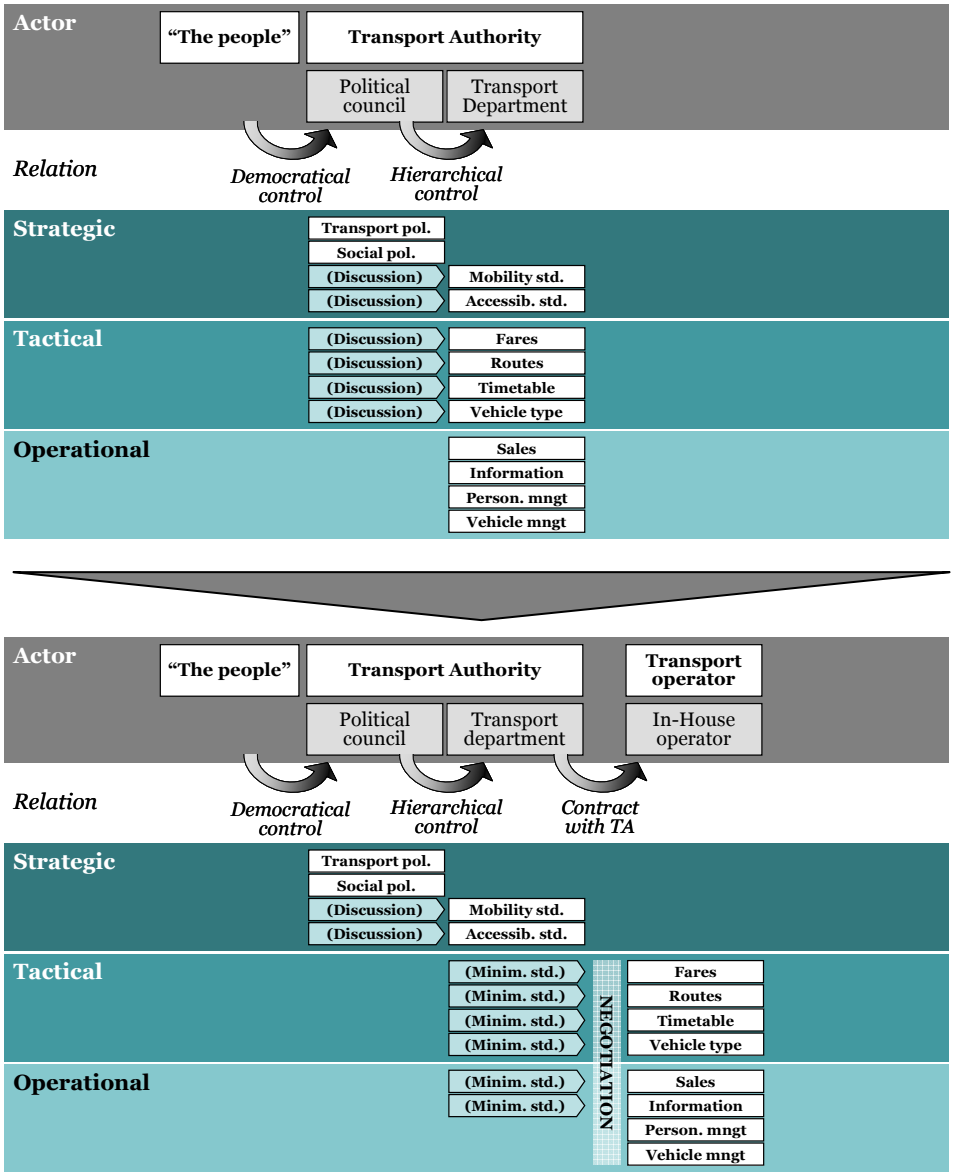


Figure 1 Typical evolution of in-house operations

4.3 Route contracting

Description

The transport authority determines a number of transport and social policy goals which then serve as planning framework for its own transport department. By doing this, the authority states its 'public service aims'. Through its transport department, the authority then organises the contracting out of the realisation the services planned. Competitive tendering procedures are used and operators are submitted to gross-cost contracts (see Figure 2).

This organisational form is also known as the 'Scandinavian model' or the 'London model'. It can be observed amongst other places in the Copenhagen, Stockholm or London area. In such areas, one or several regional and local governments co-operate to form a transport authority which has its own planning body which itself mostly results from the split-up of the former regional transport company into a planning division and a bus division. This planning division then organises the tendering for the realisation of the services it has planned.

Evolution

As illustrated by Figure 2 (option A), this organisational form originates (in most cases) in a regime based upon self-production or in-house operations where the in-house operator itself is gradually transformed into a pure planning division of the authority. This can clearly be seen in the London bus case, in the Stockholm case (both presented in this study), but also in the Copenhagen case. The transformation from self-production or in-house operator to a regime of integral contracting-out (route-by-route, or by sub-network) took in those cases about 10 years as gradual approaches were chosen to ease the transformation.

A variation upon this can be seen in the cases were the in-house operator itself is also submitted to a contracting relationship with the political side of the transport authority (Figure 2, option B). Such arrangements can be observed in Frankfurt/M (D). The Gifhorn (D) sub-contracting case presented in this study also illustrates a similar arrangement for parts of the service production. This can also be observed at a large scale in Flanders (B) where the public operator "De Lijn" (case not included in this study) is submitted to a contract with its authority (The Flemish Regional Government) and subcontracts about 50% of its services to private operators using competitive tendering. The contracted operators are submitted to gross-cost contracts, and do not have service planning (tactical level) responsibilities.

Route contracting evolved from rather simple route contracts to more complex route contracts including various forms of financial incentives. The main forms of incentives added to these contracts are incentives related to the quality of operations. This can be linked either to measured quality levels and/or to the perception of quality levels by passengers. See also the 'Quality Loop' presented in annex.

A: Route contracting by the transport authority

B: Route contracting by a public company owned by the transport authority

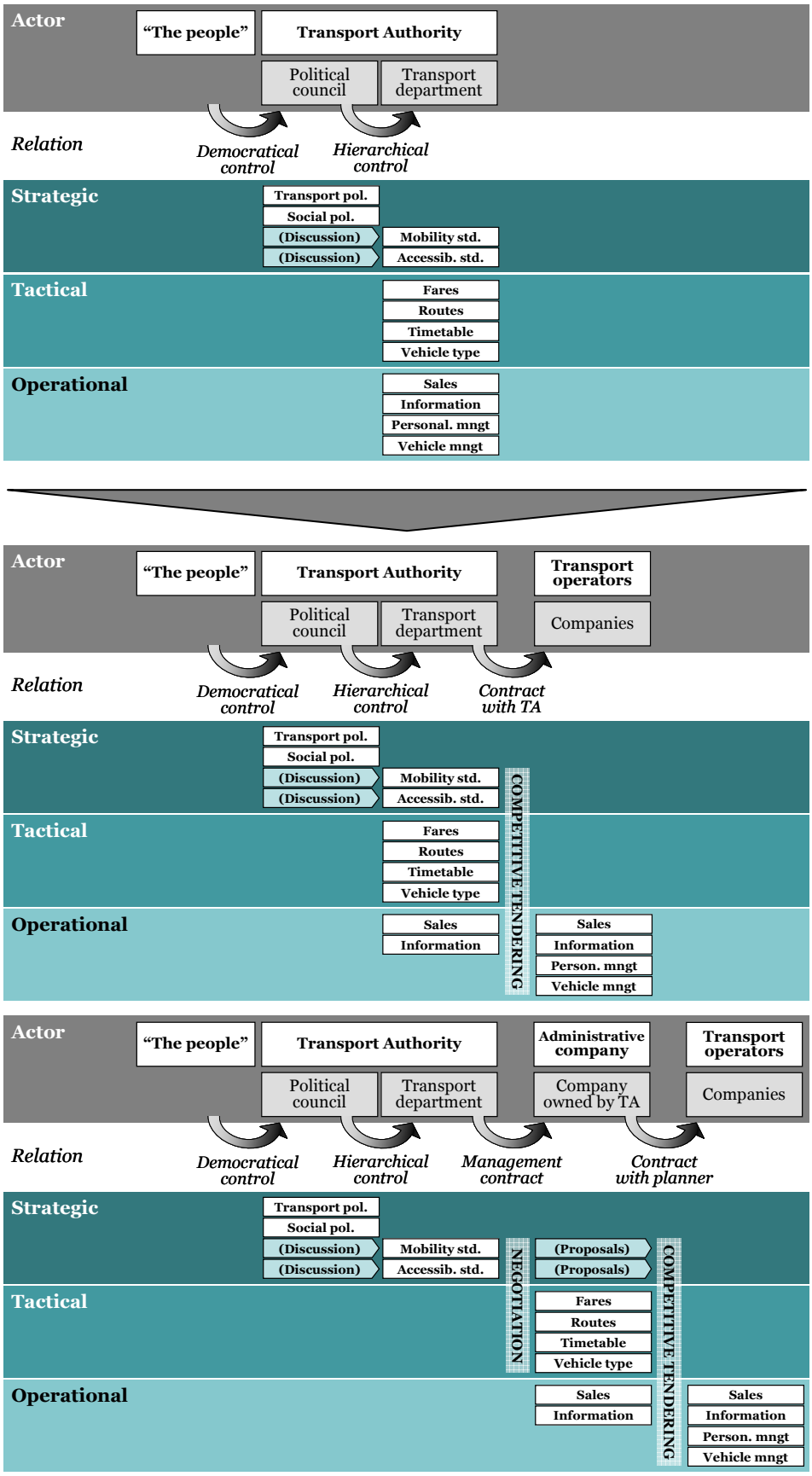


Figure 2 Central planning with route-by-route tendering

4.4 Network contracting

Description

Compared to route contracting, this organisational form goes a step further in giving (re-)design freedoms to transport operators. These are regulated by the requested standards of service defined by the contracting authority (or its agency) which organises the tendering of all services, area-wise or for the whole urban network. The setting of the requested standards of services thereby determines the 'public service obligations' (see Figure 3).

This organisational form is often called the 'French model', as it is mainly used in France. Other areas and countries do, however, also use this arrangement but with a wide variety of implementations. This organisational form was originally also used for the franchising of the British rail services. However, the distinction between the political authority and the contracting agency of the authority, which was present in the British case, usually does not exist in the French practice, or not to the same extent.

Large variations have also to be distinguished in the extent to which tactical responsibilities are given to the operators. In some case, operators are rather limited in their freedom to decide on service re-design during the contract, such as in Lyon (F) or Dijon (F), even if they are required to suggest service improvement during the contract. In other cases, the operators benefit from more autonomous decision power (and risk), such as in the cases of Haarlem (NL) or Sundsvall (S). This distinction in service design freedom given to the operator is present not only during the contract realisation, but also during contract award with the usage of more constructive (pre-determined) or more functional forms of awarding procedures. See the examples of Haarlem (NL), Grenland (N), Elmshorn (D), Lyon (F) or Dijon (F).

In most contracting cases, the operator is submitted to both the production cost risk and to the revenue risk. In many cases, additional quality and target incentives are added.

Evolution

The evolutions that have led to the usage of network contracting are much more diverse than was the case for route contracting. In some cases, this form of contracting resulted from the transfer of a former in-house operation to the market by means of integral contracting. This can be observed in some small and medium sized cities. Full network contracting at level of large cities is a feature than can essentially be seen in France, although it also tends to spread to Italy and Spain.

The evolution of this type of contractual practices in France since the 1960's, and especially during the last decade, shows clearly that this organisational form makes a growing usage of incentivising mechanisms for the operators. The growing subsidisation requirement that appeared after the 1960's and the stronger focus on mobility policy aims in the

recent years are main causes of this development. Note also that such contracting or concessioning practices where, in a number of case, already present for a much longer time. This was, e.g., the case in France.

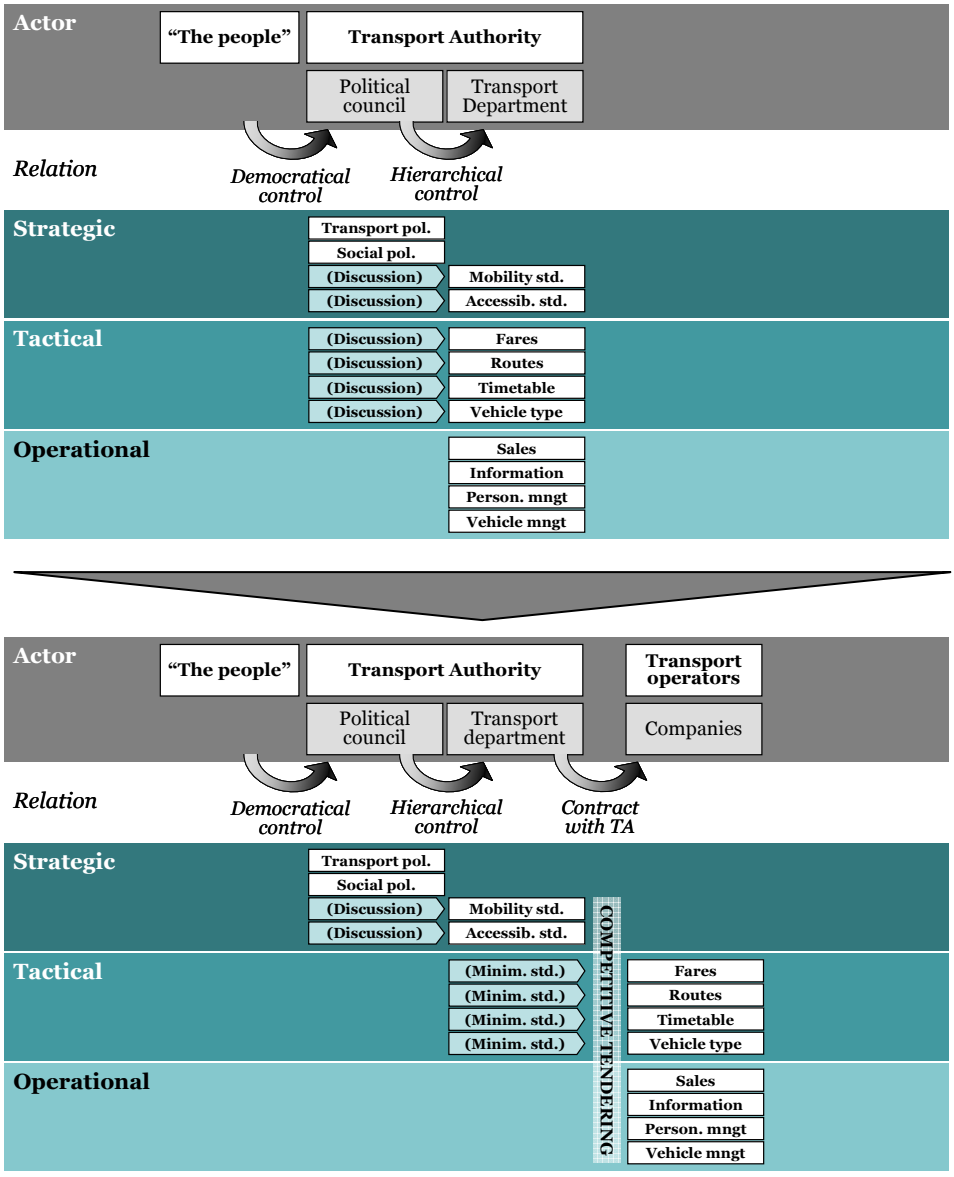


Figure 3 Tendering of the design and realisation

4.5 Free market initiative with additional contracting

Description

In this organisational form, profitable services appear autonomously out of a market process. Some subsidies may indirectly be involved in the appearance of the commercial services (such as compensation for fare rebates given to specific target groups, etc.), by which means the authority may also achieve some redistribution goals. Such subsidisation compensating public service obligations and allocated in proportion to the achieved results (e.g. the number of transported aged citizens) actually stimulates the free market to provide more services.

Regulation may still be needed for such market-initiative regimes to function properly. This can take place without necessarily closing off all possibilities for competitive threat and autonomous innovation. Quality partnerships between operators and authorities can be an example, such as in the example of Leeds (GB), although this is a very limited form compared to further possibilities provided by the British legislation. Besides anti-predatory measures, such regulation could also include various other 'rules of the game', such as:

- obligations to operate the services registered, to carry passenger according to published fares and timetables, etc.,
- provisions for service co-ordination, integrated information and integrated ticketing,
- an obligation to use vehicles accessible for prams, handicapped, etc.,
- an obligation to use specific fares, to provide a minimum level of frequency, etc.

It has to be remembered that an increase in requirements/obligations will in most cases result in fewer services being profitable. Such requirements/obligations, however, do not influence competition as long as they are equally valid for all incumbents and entrants (see the left hand part of Figure 4).

Additional (non-profitable) services can be ordered by the authority in addition to the services resulting from the free market. These additional services could be awarded on the basis of negotiation and/or tendering procedures. The transport and social policy aims, within the budget limits, then define the extent of those additional services (see the right hand part of Figure 4).

Evolution

This regime is most clearly visible in the British bus sector (outside London), where it was introduced in 1986. There are, however, places in the Eastern part of Europe (mainly), were a supply of services has appeared out of a free-market process, essentially making use of minibuses.

The main issue in the functioning of such regime is the balance that has to be struck between the freedom that has to be given to autonomous market initiative to generate service innovation and the need for service co-ordination that, by imposing limitations, limits the autonomy of the

market. One of these evolutions is the development Quality Partnerships in Britain outside London, such as in case of Leeds (GB) presented in this study.

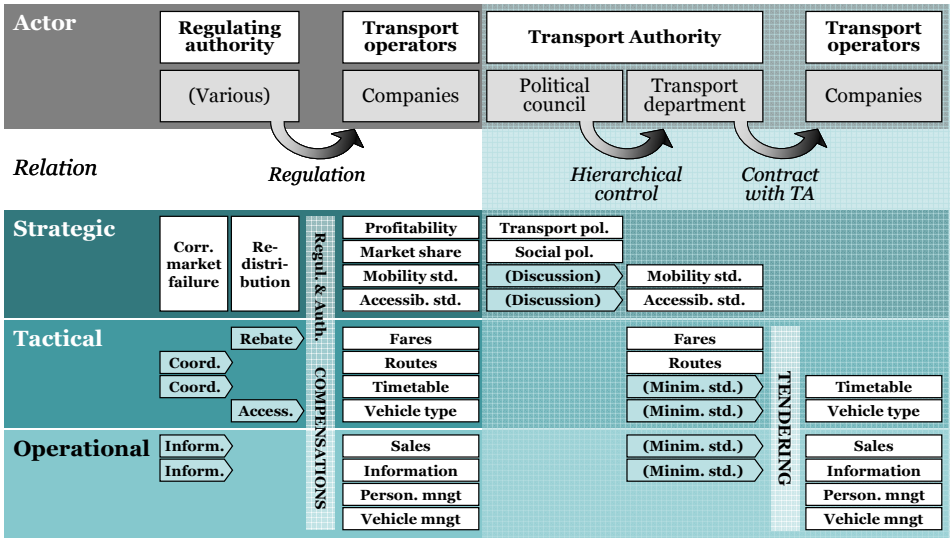


Figure 4 Free market (open access with regulation) [L] and additional ordering [R]

4.6 Conclusions

The European public transport scene was first revolutionised by the British deregulation of 1986 but it was the more cautious bus reform by competitive tendering route-by-route, introduced in London in 1984, that proved to be a more convincing example for many countries. Copenhagen, for example, introduced a similar regime and route-by-route competitive tendering has now become the norm in almost the whole of both Denmark and Sweden and can reckon on a growing number of adepts in other countries. Network tendering is the main alternative. This practice could first be observed in French urban areas and in the first round of 'franchising' in the British railway sector. It is now also a growing practice in public transport in the Netherlands and to a lesser extent in Germany. This regime has the advantage of enabling operators to make use of some of the service design freedoms enjoyed by deregulated operators. The practice of this regime is, however, diverse. Operators have, e.g., much less leeway to use their inventiveness to change services in the current French contractual practices than in the contractual practices in the Netherlands. Both route and network tendering are in (slow) evolution though. Various quality control instruments are being added and the more daring authorities transfer some planning powers to operators as traditional tendering proved to be more successful in cost cutting than in increasing passenger numbers.

The organisation of local and regional public transport in Europe has been submitted to considerable changes during the last two decades. A main trend in number of countries and cities is the growing usage of contracting. Such 'contracting' can indeed take many forms, as many kinds

of relationships are possible between transport authorities and transport operators.

Another feature of the last two decades is the growing usage of some form of competition in the award of operational right to operators. This can broadly speaking be classified under the headings 'competition *on* the road' and 'competition *off* the road' but the actual organisational forms implemented in various countries exhibit much more variety than suggested by this division. While operators can develop services as they like under 'competition *on* the road', under regimes using 'competition *off* the road', on the contrary, transport authorities prescribe which services have to be produced. Such regimes vary considerably in their implementation, from fully prescribed timetables at one extreme, to functionally described service levels at the other extreme, as could be seen in the evolutions presented above.

In the beginning of the 1990s, most authorities still adopted a rather conservative stance to most forms of competitive pressure, but a number of them had already started to introduce competitive tendering[3]. Later, several countries adopted or continued to develop a contractual approach, often giving competitive tendering a place in their new regime (Denmark, Sweden, the Netherlands, Germany, Italy, etc). Organisational forms continued to evolve in the ensuing years and numerous publications have in the meantime reported on their performances.[4]

Besides awarding mechanisms based upon competition, there are too numerous cases of direct award to public operators. Here too, relationships between transport authorities and operators have evolved, and it has become growingly common to encounter clear contracting agreements and monitoring schemes evaluating performances delivered in exchange for public support in such relationships.

The growing involvement of private operators led to the development of major international operators. These originate almost exclusively from Britain and France for the time being. The early deregulation of the British bus market in 1986 led to the appearance of new major British groups: Arriva, First, National Express, Go-Ahead and Stagecoach. Out of these, Arriva is probably the most active on the continent; Go-Ahead and Stagecoach were both active in Scandinavia too, but withdrew after a few years. As far as France is concerned, the long-standing French contracting-out tradition combined with the new European trend led to the expansion of the existing French groups (Veolia, Keolis and Transdev) to the rest of the continent. Sometimes this was accompanied by a reshuffling or participation from a main state transport company (SNCF participates in Keolis).

[3] See Gwilliam and van de Velde (1990) for developments prior to 1990.

4 The ISOTOPE study (1997) refers to several such studies and contains additional evidence.

The wide variation in market access and subsidisation regimes that can be observed reduces considerably the transparency for potential entrants. This, besides other reasons, led the European Commission (EC) to decide to revise its Regulation 1191/69 (dating back to 1969 but amended in 1991 by Regulation 1893/91) pertaining to the payment of compensations for Public Service Obligations to transport operators. In turn, this reform commitment by the European Commission proved to be a major impetus for a further spread of reform throughout Member States and Accession Countries. Yet, the slow progress of the reform proposal formulated by the EC in the parliamentary process left many countries to struggle with the legal and practical implications of the pending changes. The recent publication of Regulation (1370/2007) on Public Service Obligations (3 December 2007) repealing Regulation 1191/69 resolves this issue.

In conclusion, we can observe that the way public transport is organised varies considerably from country to country, and even from city to city. Numerous aspects come into play: the way national and local authorities divide regulatory powers upon public transport, the way public transport financing is organised, the ownership and structure of transport operators, the nature of the relationship between authorities and transport operators, the way to establish this relationship, the possible usage of competitive mechanisms as part of a regulatory regime, etc.

The next part of this document will guide practitioners through many of these issues and help them making choices that will enable them to select those contracting features and awarding procedures that may allow them to realise their transport policy aims.

PART II: Guidebook

5 Introduction on contracting and awarding

"Past experience has shown that, as a rule, using contracts either directly awarded or tendered with clearly defined objectives laid down by the authorities can achieve significant improvements in efficiency."[5]

5.1 Introduction

Public service obligations are requirements defined or determined by a competent authority in order to assure passenger transport services in the general interest that an operator, if it were considering its own commercial interests, would not assume or would not assume to the same extent or under the same conditions without reward. Services of general interest are therefore, among other things, more numerous, safer, of a higher quality or at a lower cost than those that mere market forces would have allowed (PSOR Art. 1.1 and 2 (e)).

The main instrument in the hands of the authority to implement public service obligations is a public service contract. A contract determines in a clear manner the partnership between authority and operator. A clear and unambiguous definition of the necessary aspects promotes a strong partnership between the actors and prevents a power struggle or a neglect of tasks.

Part I of this study presented numerous different contract types for public transport in Europe. These must be seen in the context of an enormous variety of legal frameworks, institutional arrangements, and allocation of risks and responsibilities between authorities and operators. In this context, one single contract type would not be suitable for all areas or countries.

This second part of the study will provide information that will help authorities to translate policy aims for a well-functioning public transport system into practice. Based on this information, authorities will be able to analyse their specific situation and to select appropriate contractual features and awarding procedure.

Contracting and awarding within public transport takes place in a complex environment. The following sections of this chapter provide the reader with an overview of the essential aspects in the relationship between authority and operator (section 5.2), the market organisation (section 0) and the usage of contracts (section 5.4). Section 5.5 concludes with a general schedule for contract awarding.

[5] UITP: A Market in Motion (2005, p. 18).

Following this schedule, chapter 6 to 8 give recommendations on the whole process of contract awarding. Chapter 6 presents a self-assessment procedure for the identification of aims; chapter 7 gives recommendations on the selection of the most appropriate contractual instruments and chapter 8 presents awarding methods suitable for the specific local situation.

These recommendations should help competent authorities to identify and realise aims and to select the appropriate public service contract and award mechanism. They are based on well-established theoretical considerations and important studies on this subject. Furthermore, the results of the case analysis (see chapter 2 and chapter 3) of contractual and awarding procedures within the different member states of the European Union and the corresponding interviews provide several best practice examples and recommendations on how to reach better public transport in a changing environment.

5.2 The relationship between authority and operator

The cases analysed in chapter 2 and 3 illustrate that several items determine the relationship between authority and operator. This relationship has to be designed to facilitate the achievement of policy goals. Several items within that relation will define the scope of action of each partner:

- Roles and tasks of the parties to the relation;
- Ownership of infrastructure and ownership of the transport operator;
- Risk level for the operator;
- Planning and design of public transport services;
- Control of performances.

In a first step, the authority needs to formulate its own aims within each relationship parameter. Subsequently further items need to be discussed to reach a feasible situation. Each parameter then has to be calibrated according to the aims of the authority and the possibilities of the operator) (see Figure 5):

- The first parameter describes the authority's and the operator's responsibilities as well as their sphere of influence with respect to the definition of policy aims (strategic level), service design (tactical level) and operations (operational level).
- The second parameter deals with the decision of ownership concerning the infrastructure or the operator (establishing or using either private, municipal or shared ownership operators).
- As for the third parameter, consisting of planning/design of public transport services, two general approaches are possible. Either the authority specifies to a large extent the consistency of the services (constructive design) or it limits itself to defining the service standards that the operator will have to fulfil leaving the operator a larger freedom in the design of the services (functional design).
- A fourth parameter concerns the decisions to be made on how to control performances. The authority may monitor services, use incentives or a combination of both.
- Finally, the fifth parameter depicts the decision on the level of risk to be allocated to each of the contracting parties.

As indicated in Figure 5, and as could be seen in the case analysed, the public transport framework is composed of two main instruments:

- General decisions about roles and tasks and about the ownership of the infrastructure and the operator are usually decided by authorities (e.g. within political councils). These decisions determine the organisational structure of the local public transport market (**market organisation**).
- In order to implement the aims of the authority into day-to-day operations, agreements about planning and design of public transport services, the control of performances and the risk level for the operator need to be fixed. In most cases, these three agreements are explicitly laid down within **public service contracts**.

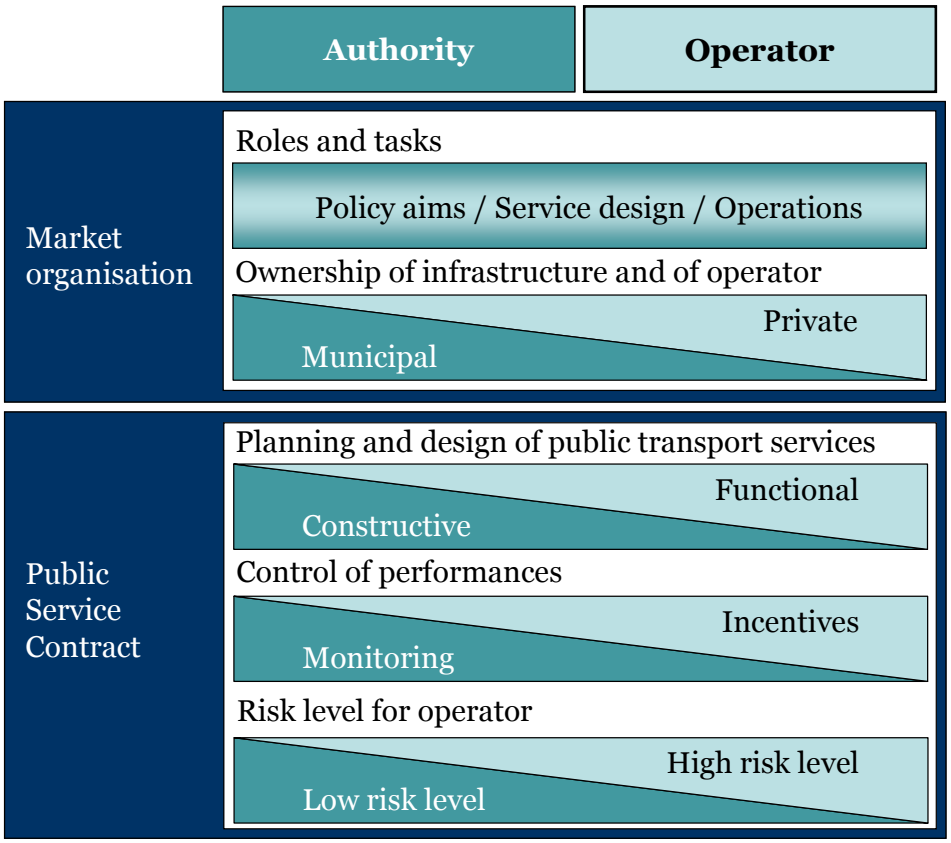


Figure 5 Relationship: Fixing instruments

These two instruments will be presented in the next two sections.

5.3 Market organisation

This section presents two main elements of market organisation:

- the general decision on the respective role and tasks of authority and operator and
- decisions concerning the ownership of essential assets for the production of passenger transport services: infrastructures and transport operator.

5.3.1 Role and tasks of authority and operator

This section deals with fundamental organisational issues related to the establishment of passenger transport services:

- Firstly, the difference between 'aims' and 'means' of passenger transport services;
- Secondly, the allocation of roles and tasks pertaining to service design to authorities and operators and the possibility to share decisions;
- Thirdly, the time dimension, stressing the importance of allowing passenger transport services to follow changing demands during contract periods.

Aims versus means: Policy aims, service design and operations

Whatever the legal setting and the local institutional conditions, several decisions will have to be taken by various actors in order to provide public transport services to passengers. An essential distinction between all decisions to be made is that between:

- Decisions on the **aims** to be reached, and
- Decisions on the **means** that will allow the realisation of those aims.

Taking decisions about a fare level, about a specific timetable or about the design of a public transport vehicle, are all decisions related to means. The danger is that public transport evolves haphazard, without focus and ultimately with little efficiency and effectiveness if such means-related decisions are taken before discussing the aims that one attempts to reach.

This section presents this essential distinction between aims and means. This presentation is based on the generally accepted principle within management science that planning and control systems within companies can be divided into several levels of activities which differentiate themselves according to the scope of planning addressed and the associated planning horizon. This can be done for public transport just as well as what is the case for other industries:

Strategic level: strategic planning includes the formulation of general aims and the broad determination of the means that can be used to attain these aims.
In short: ***(Policy) aims****: what do we want to achieve?*

Tactical level: tactical planning is about making decisions on acquiring means that can help reaching general aims, and on how to use these means most efficiently.
In short: ***Service design:*** *what service can help us to achieve the aims?*

Operational level: makes sure the orders are carried out, and that this happens in an efficient way.
In short: ***Operations:*** *how do we produce that service?*

Figure 6 translates these to the public transport sector, without yet referring to any specific legal or regulatory setting, to any specific allocation of tasks or to the number of actors involved.

Strategic level decisions are those relating to general aims and service characteristics. This includes such topics as profit targets (for commercial markets) or available budgets (in most other cases) and market share aims (such as modal split aims for public transport), the general description of the services that will be provided, the area of supply, the definition of main target groups and the positioning of services in relation to substitutes and complements (i.e. intermodality). This level is actually the core of 'entrepreneurship' in public transport as the actor responsible for these crucial decisions takes the initiative for the creation and supply of services. This actor thereby takes some form of risk and delineates at least the main characteristics of the services that will be provided.

Tactical level decisions translate these aims into detailed service characteristics. This is the actual 'design' of the services. We find here the traditional parameters of public transport such as the definition of routes, timetable, vehicles and fares, but also 'softer' aspects such as the image of the services, the skills of the personnel and the provision of additional services to passengers (such as catering, news, etc.)

Operational level decisions translate tactical aspects into day-to-day practice. This includes the management of sales staff, of drivers, of vehicles and of infrastructure to ensure the realisation of the services according to the tactical planning.

Level	General description	Decision	
Strategic Long term	*What do we want to achieve?*	**General Goals** • Transport policy • Market share • Profitability / Public transport budget **General description of the services** • Area • Target groups • Intermodality	
Tactical Medium term	*Which services can help to achieve these aims?*	**Detailed service characteristics** • Fares • Personnel skills • Image & additional services • Vehicles • Routes • Timetable	
Operational Short term	*How to produce these services?*	**Sales** • Selling activities • Information to the public • ...	**Production** • Infrastructure mngt • Vehicle rostering & maint. • Pers. rostering & mngt

Figure 6 Levels of planning and control in public transport

Important note: *This model only constitutes a grid of analysis to position various decisions that have to be taken in public transport in order to be able to provide services to customers. We would like to stress that:*

- *It does not make any prescription on the exact aims of the public transport system (strategic level), leaving this to be determined by transport authorities and operators within their local context.*

- *It does not either determine the identity of the actors involved at the various levels, leaving absolutely open whether these are one, two or more authorities, public or private companies, or other actors.*
- *It does not either make any choice as to the usage of competition as a part of any organisational form.*

Strategic decisions are taken for a longer period of time, usually related to local or regional (transport) planning periods, tactical decisions can vary more often, usually in relation to timetable periods, and operational decisions are shorter term operational management decisions that can be amended at a shorter notice. Obviously, the adequate length for 'strategic planning' and to some extent also for 'tactical planning' will vary all according to the circumstances. These terms are, e.g., likely to be shorter when considering a rather simple local bus network in a provincial town. However, these terms will be longer and have more fundamental implications when considering the provision of rail-based transport services in large metropolitan areas.

Service design: sharing of decision-making between authorities and operators

The **strategic level** pertains to the general definition of aims. In general, strategic decisions are mainly made by (transport) authorities. Authorities determine to a considerable extent what is and what is not feasible as they are the actor providing for the financing of public transport. Note that there may be several authorities involved, and that subsidising authorities are not necessarily those which determine public transport policy aims. Note also that this level may partly be under the responsibility of the transport operator, especially in the case of an in-house public operator, or on the contrary in the case of fully deregulated markets where independent operators are fully responsible for their decisions to provide services on the free market.

The **operational level**, at the other extreme, is the realm of the transport operator. Decisions pertaining to day-to-day personnel management, vehicle management, service operations, etc. are usually taken by transport operators with no or only limited direct authority influence. However, parts of these activities are sometimes undertaken by both transport operators and authorities (such as passenger information services or selling activities).

This intermediate '**tactical**' planning **level** is essential, as it is here that services are designed and that the evolution of passenger transport networks takes place to suit passenger demand and policy needs. The allocation of roles and decision-making at this level is usually more complex than the strategic and operational level.

The tactical level is usually, in one way or another, a 'co-production' between the (transport) authority and the transport operator(s). As an illustration, Figure 7 (which is based upon the graphical representation introduced in chapter 4) gives just one of the many possible examples of such an allocation of decision power:

- the political council of a transport authority could, e.g., decide on the regional transport plan,
- while the transport department of the authority could, e.g., decide on the location of the main interchanges for the public transport network and on the general basic frequency of the transport system, and
- while the operator(s) (transport companies) would, within those limits, decide on the exact routing and timetable of the services, and perhaps also on the fares (all within the maximum fare increases decided by the authority).

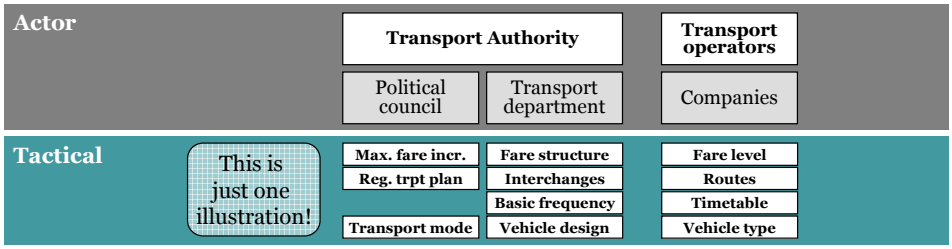


Figure 7 Illustration of sharing of responsibility at the tactical level

Fixed vs. flexible service design

Decision making on service design (i.e. tactical decisions) can be organised in different ways. We need to distinguish two fundamental 'periods:

- The period during which the contractual relation between operator and authority is established
- The period during which the contract is realised.

It is important, when allocating tasks and responsibilities to authority and operator, to look also at the period of realisation of the relation, as passenger transport demand does not remain static for the whole length of a contractual relation period.

For each of these two 'periods', fundamental organisational decisions have to be taken as to the allocation of initiative power and decision power to the authority and to the operator(s).

Within the (first) 'period' of establishment of the relation, service design can be determined:

- by the authority **prior** to contracting; in the context of awarding, this is also known as '**constructive**' awarding;
- in a negotiated way between the operator and the authority **during** the contracting process; this intermediate way to organise things is also known as '**negotiated**' or
- by the operator **through the bid** that he delivers to the authority; in the context of awarding, this is also known as '**functional**' awarding;

During the (second) 'period' of contract realisation, service redesign can also be organised in different ways:

- It can be determined **by the authority**, or
- It can be determined **by the operator**. In this latter case:
  - the operator may have the freedom to modify services **autonomously** as he wishes (indeed, within specific norms of network accessibility specified by the authority within the contract) or

- the operator may only have the possibility to **suggest** amendments to the network, whereas the authority remains in charge of deciding upon the implementation of those changes after conducting a check on the desirability and/or financial consequences of the change.

These various possibilities are presented in the two dimensions of Figure 8, which results into 9 conceptual ways to organise the sharing of responsibilities on service design between operator and authority. As an illustration, the table contains the names of a few of the cases analysed in this study.

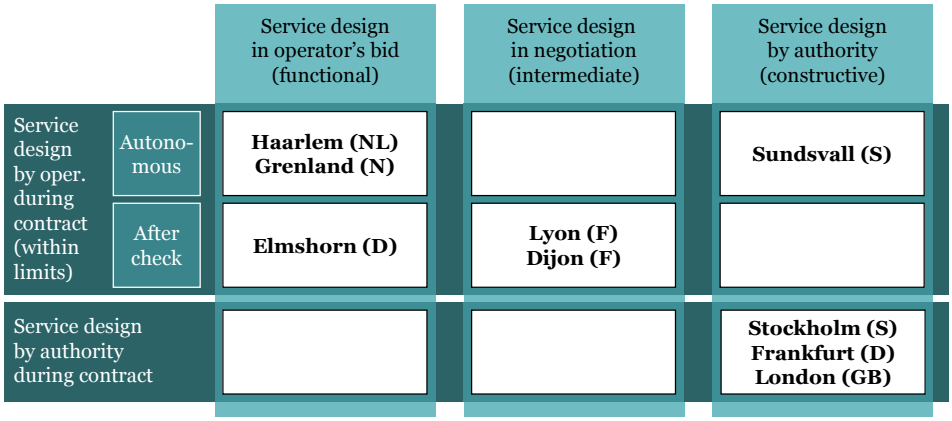


Figure 8 Tactics and contracting

Haarlem (NL)

The operator (Connexxion) is submitted to a tendered net cost contract with 4 % additional passenger incentives and 2.6 % quality incentives included in the contract. The awarding was based on a functional tendering and the operator has a relatively large amount of freedom at the tactical level during the contract period.

Trieste (I), Sondrio (I)

The duration of these net cost contracts is respectively 10 and 7 years and the network design is defined in local transport plans. The operator in Trieste can propose variations in the network design and the Province shall verify their compliance with the regional transport plan and approve them.

5.3.2 Ownership versus usage

A second main question from an authority's point of view is how to organise the ownership of the operator and/or the infrastructure. The provision of public transport services requires on the one hand the availability of specific assets (such as infrastructures and vehicles), and on the other hand the management of those assets in combination with personnel to deliver the transport services. Several models might be appropriate to the specific need of the authority. The provision and ownership of the assets, and the management and operations of the services can be

localised either on the side of the authority (or a linked entity) or on the side of the operator.

We need to distinguish three main issues when considering this ownership issue:

Firstly, various **ownership options** are possible:
- Public ownership
- Mixed ownership (majority private partner of more than 50 % or minority private partner of less than 50 %)
- Private ownership

Secondly, the issue of **separation between infrastructure ownership and operator ownership** has to be addressed (and the ownership can be organised differently for each part):
- Vertical integration (operator owns infrastructure)
- Vertical separation (operator does not own infrastructure)

Thirdly, in case of vertical separation, the issue of **infrastructure management** has to be addressed:
- The operator manages the infrastructure
- The authority manages (or organises the management) of the infrastructure, separately from the operator of passenger transport services.

Combining both dimensions of ownership and usage in the case where the transport operator also manages the infrastructures leads to Figure 9:
- In the public management case, the authority is the owner of assets and the provision of the transport services takes place through a public operator; such operator may be submitted to an in-house contract.
- In the delegated management case, the operator is in principle independent from the authority and makes use of the assets provided to him by the authority. There are several ways to provide these assets, such as a provision 'for free' by the authority, or a provision of the assets through a contract with a publicly owned infrastructure or leasing company, or other arrangements.
- In the third case, the operator provides assets and takes care of the operations of services, making use of these assets. Such contracts vary from simple bus service contracts where the operator provides bus services with its own buses, to more complex DBOT contracts (Design, Build, Operate and Transfer) and infrastructure-concession-like type of contracts where the operator is also involved (to a varying degree) in the design of the assets and in their realisation and other PPPs (Public-Private Partnerships). Such contracts are usually longer due to the necessary lead-time, development time and amortisation period.

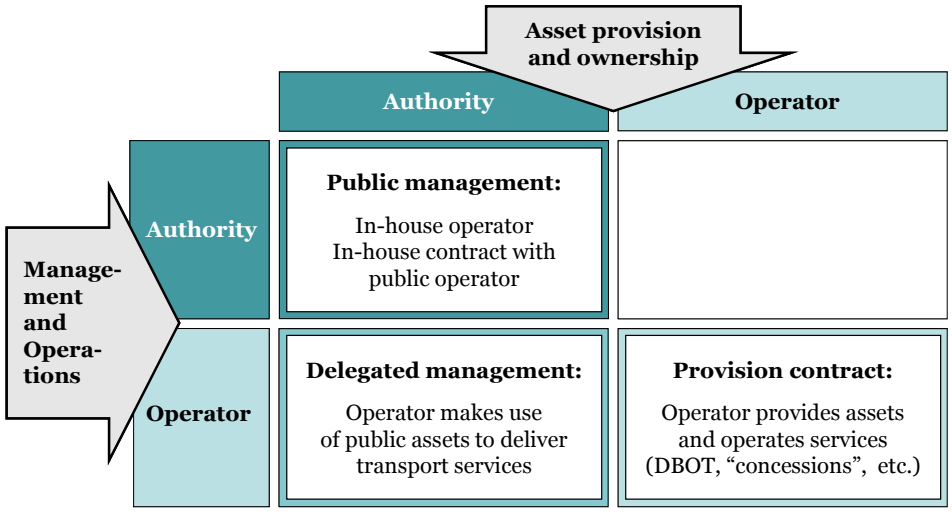


Figure 9 Ownership and usage

Krakow (PL): Public management

Within the city of Krakow (PL) the operator MPK is a 100 % municipally owned company, responsible for public transport within the city area. Rail infrastructure (tramway) is owned by the authority, which also bears the investment risks for the infrastructure. Vehicles (busses and trams) as well as maintenance facilities are owned by the operator MPK, who also bears the investment risks for this capital equipment.

Lyon (F): Delegated management

The public transport assets in the urban agglomeration of Lyon are owned by the transport authority. The passenger transport services, however, are provided by an independent transport operators (selected in competition), who provides the transport services using the assets (vehicles, metro and tram infrastructure) of the authority. The operator is also in charge of infrastructure maintenance.

Parla (E): Design, Build, Finance, Operate and Maintain contract

The authority selected in competition an operator to build, finance, operate and maintain a new tramway line over a period of 40 years.

5.4 Public Service Contract

> *"Contracts are the mechanisms to formalise the relationship between the authority and an operator. The organising authority is responsible for its transport policy (...). The operator contributes to the realisation of this policy in the framework of a contractual relationship."*[6]

A public service contract defines rights and duties of the contracting parties, authority and operator. As can be seen in the figure below the authority defines the operator's obligations. The operator has to fulfil the contract and, in return, receives the right to a public compensation.

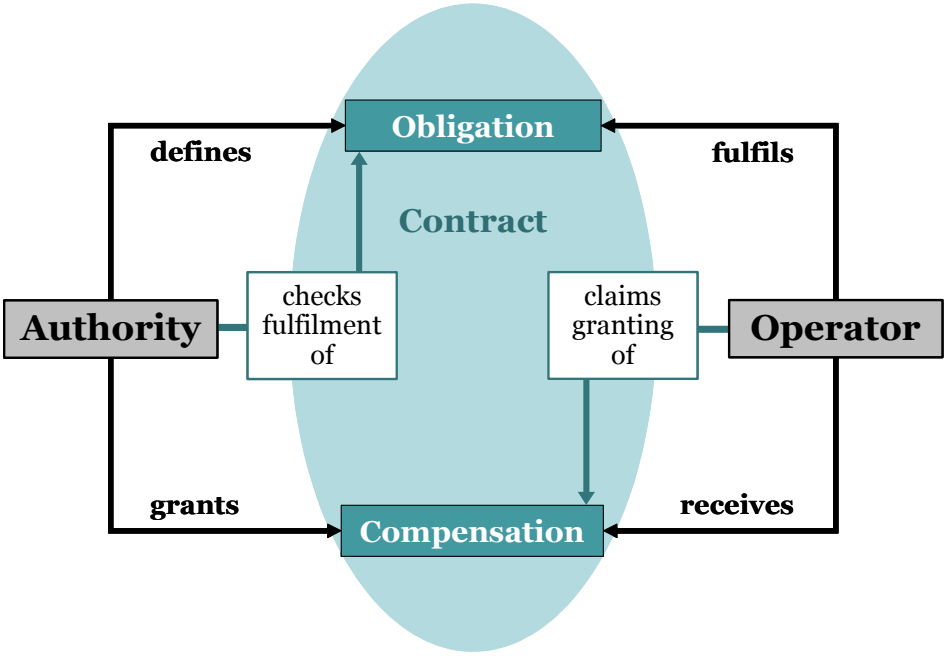


Figure 10: Rights and obligations of the parties within a public service contract

According to PSOR Art. 2 (g), this compensation means any benefit, particularly financial, granted directly or indirectly by a competent authority from public funds during the period of implementation of the public service obligation or in connection with that period. This compensation has to be granted by the authority after checking that the operator has fulfilled the obligations according to the public service contract. Consequently, a (public service) contract documents the obligations of the operator within public transport services as well as its rights (e.g. exclusivity, compensation, subsidies,...)

A contract then serves as a means of checking whether the obligations of the two parties have been fulfilled in the agreed manner or not. Therefore the contract is not only a document fixing the fulfilment obligations

[6] UITP (2005, p. 22).

of the operator, but also (usually) the payment obligations of the authority.

According to PSOR Art. 3.1, any grant of an exclusive right and/or other compensation given to the operator by the competent authority in return for the discharge of public service obligations, of whatever nature it may be, must be awarded within the framework of a public service contract. As was already mentioned in the overall introduction (see chapter 1), a 'contract' in the context of this study is not only a contract in the classical legal definition (i.e. a written document confirmed by both contractual parties by signature). This study uses a much wider definition of contract, including one or more legally binding acts confirming some form of agreement between the acting parties' authority and operator. This wide definition of the word 'contract' is the same as that used in the definition by the draft Regulation on public service obligations (PSOR Art. 2 (i) together with article 2 (e)). Please note that according to PSOR Art. 2. (k), and in contrast to a "public service contract", a "general rule" means a measure which applies without discrimination to all public passenger transport services of the same type in a given geographical area for which a competent authority is responsible.

5.5 Schedule for awarding contracts

Figure 11 gives an overview of the main stages within the process of contract awarding and indicates the tasks for the authority.

The procedure starts with the preparation stage, where the authority, taking into account local circumstances, has to identify its aims. These aims have to be translated into a draft contract (second task of the authority). The final task will be the award of the contract (contract awarding phase), either directly or after a competitive process. Note that this is a simplification of the exact procedural steps. These will depend upon the specificities of the various legal and regulatory systems in place in the various member states.

After having awarded the contract, the authority is responsible for the proper implementation of the contract and for the monitoring of the fulfilment of the obligations of the operator during the contract period (while the operator, from its side, monitors the granting of compensations as laid down in the contract, too, see chapter 5.4). Usually these tasks of the authority are already determined within the preparation stage and are part of the contract.

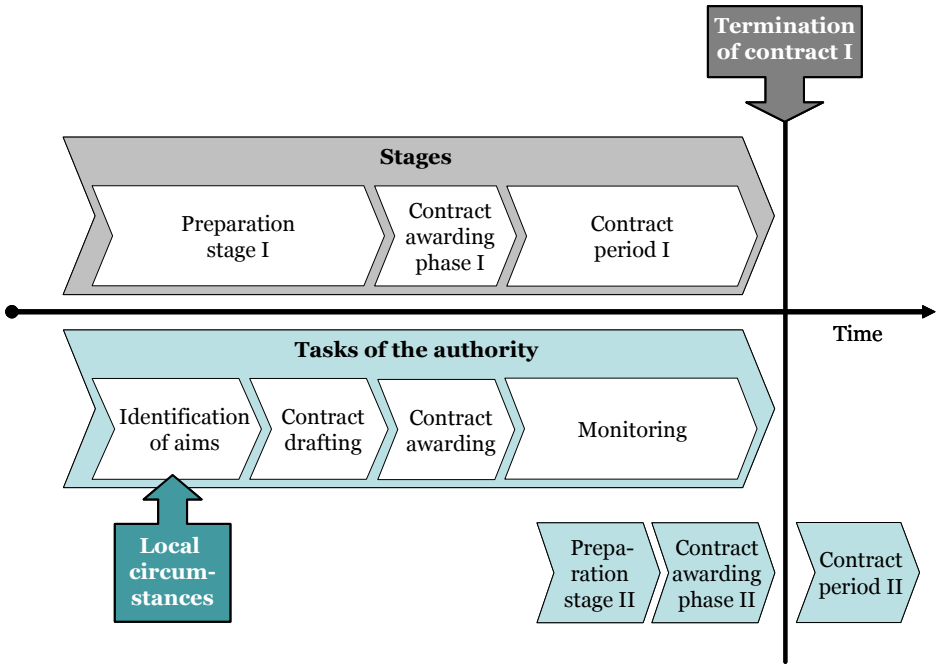


Figure 11 Awarding contracts: schedule for authorities

Figure 11 presents the schedule of tasks for the authority within the procedure of awarding a contract. In the upcoming chapters, each single task will be explained one after the other according to Figure 12.

The first task is the identification of aims, explained within chapter 6. It starts with an overview of aims that authorities typically may want to achieve while supporting public transport. It then examines how these aims might be identified and compares them with existing local circumstances. Based on the tactical means that have been extracted from the strategic aims, the authority is then able to draft a suitable contract.

This process of contract drafting represents the second task for the authority, explained within chapter 7. The main aspects to be considered while developing the contractual relationship are presented here. Special attention is put on risk issues as well as minimum standards and no-go areas. Finally some recommendations on the implementation will be given.

Contract awarding can be identified as the third task. The final chapter 8 explains the main aspects of the legal framework for the award of contracts and concludes with general best practice recommendations, based on the analysis of cases, on how to award a contract. The fourth task of the authority, being the monitoring and evaluation during the contract term, will be fixed within the contract drafting and contract awarding.

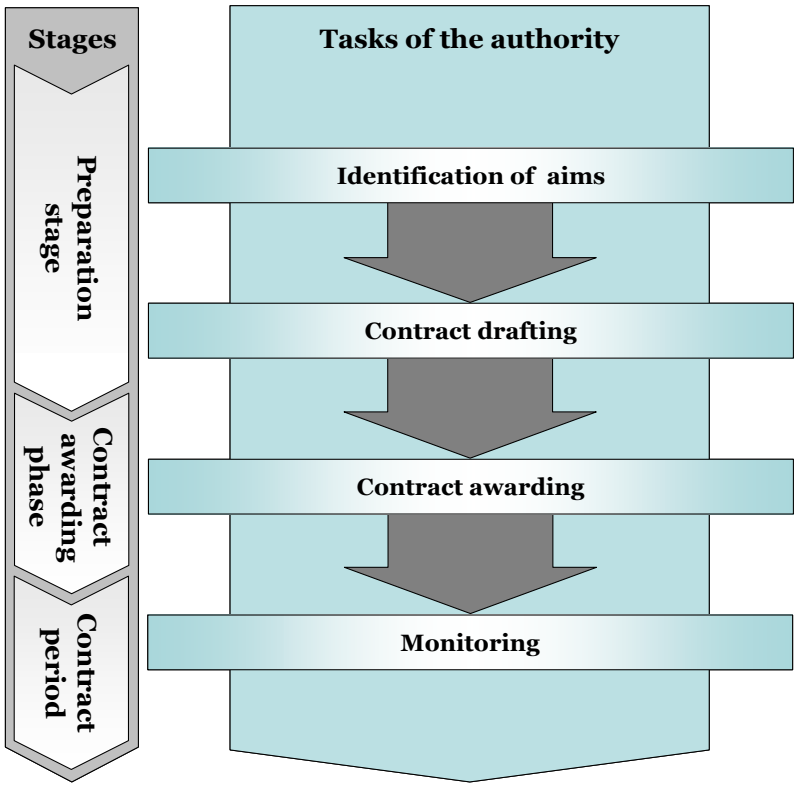


Figure 12 Awarding contracts: Chapter structure

Please note that this study focuses on contracting and awarding. Nevertheless, developing a suitable market organisation might be an important task within the preparation stage. It is recommended to determine the appropriate organisational structure before starting to draft and award the public service contract.

6 Identification of aims

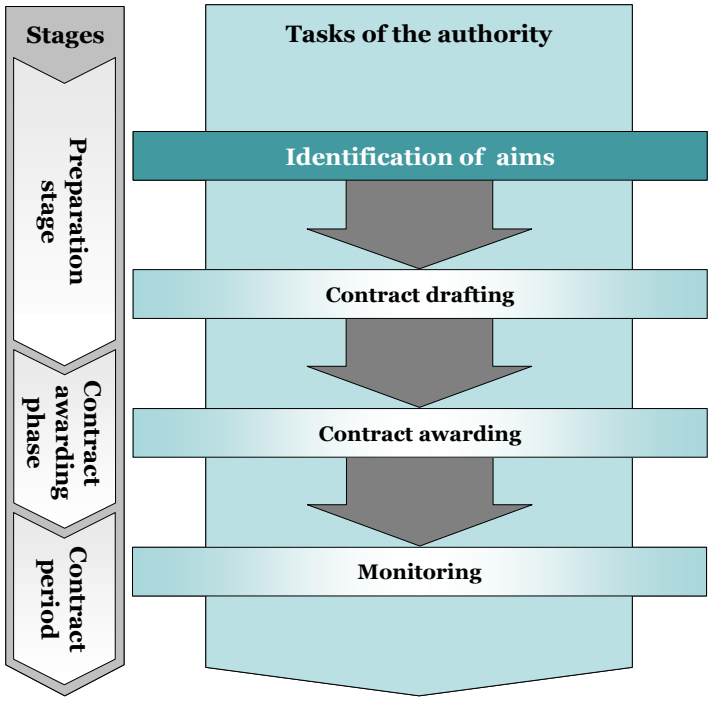


Figure 13 Identification of aims

In order to be able to draft a contract adapted to the local needs, the authority has to decide upon the main objectives that it wants to achieve while providing the market with (financial or other) support and regulating the market. This chapter gives an overview of typical aims that authorities want to realise and of important local circumstances that have to be taken into consideration. For an easier selection of objectives, the chapter starts with some advice on how to identify these aims.

6.1 Main steps

> *"Clarity about what the public authority wants and expects from its public transport is ... necessary to achieve the required level of service."*[7]

Clearly defined objectives are essential to attain a good service quality. As can be seen in Figure 13, the identification of aims forms the first task of the authority. Figure 14, which focuses only on the identification of aims, gives a brief overview of the main steps within this task. These steps also form the structure of the following sections.

[7] UITP: A Market in Motion (2005, p. 10).

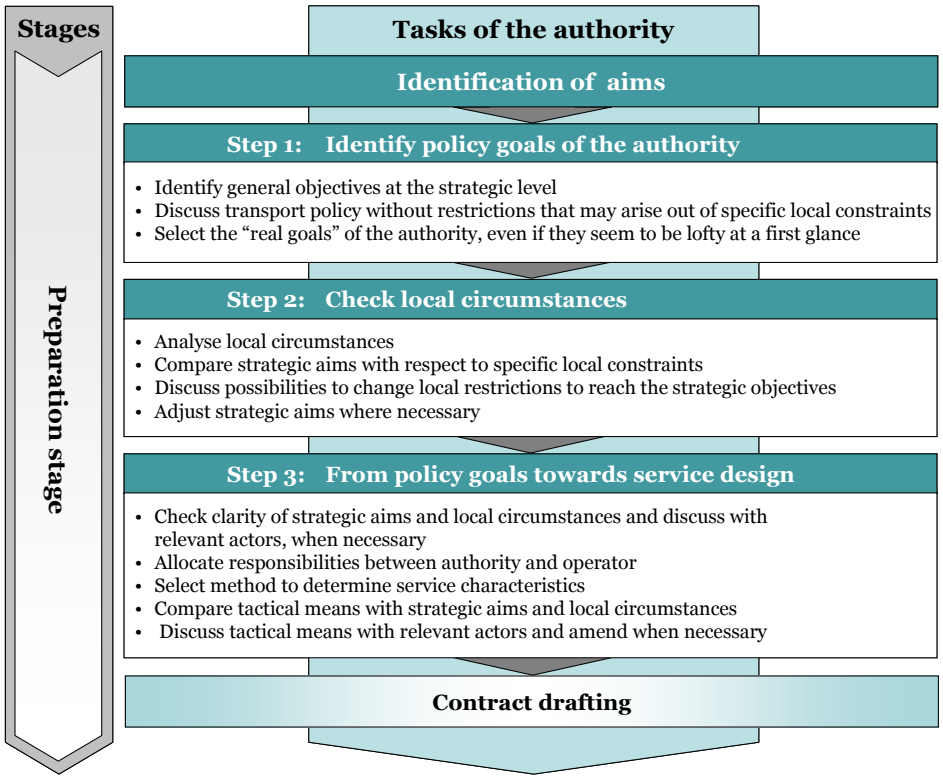


Figure 14 Main steps to identify aims

- As a first step, after the identification of passenger needs, the authority has to **define its policy goals**. Choosing a policy goal is the exclusive responsibility of the authority. It is also necessary to analyse local circumstances and to consider these constraints, when defining strategic aims. To enable the identification of the authority's 'real goals', it is recommended to discuss transport policy aims without restrictions in a first stage. Otherwise, constraints caused by local circumstances might undermine the discussion at an early stage. An inventory of typical transport policy aims that authorities may want to achieve is included in sections ☐ to 6.4 below.
- In a second step, a **comparison of policy goals with local circumstances** has to take place. This may include a brief market screening. The authority may decide to invite interested operators before the awarding process to discuss what market players are able to deliver as long as this is done in a fair, transparent and non-discriminatory way.[8] An inventory of the relevant local circumstances is presented in section 6.3 below. While trying to find the best solution for local needs, it is recommended to discuss possibilities to alleviate restrictive local restrictions rather than to settle immediately for downgraded aims.
- In a third step **from policy goals towards service design,** one of the main tasks will be the determination of the service characteristics from the authority's point of view and the allocation of responsibilities. An inventory of typical tactical means (service concepts) and

[8] Please be aware of legal restrictions that may apply, see also chapter 0.

some recommendations on this subject are presented in section 6.4 below. It is advised to make clear statements in this crucial step. A discussion with relevant actors, e.g. in a publicly held meeting, before drafting the contract in the fourth step might be an adequate way to do so.[9]

The transformation of policy goals (strategic aims) into services (tactical means) may be demanding, especially when the authority identifies a discrepancy between the aims identified in the first step and the possibilities to realise these aims as dictated by local circumstances in the second step. There may, e.g., be insufficient infrastructure, a low or decreasing public budget, or an inadequate organisation of the local actors, etc. At this stage, the authority has to decide whether to accept these constraints or whether to alleviate them and to find a way to reach the aims identified within the first step.

Changes within the legal and regulatory framework face several difficulties. The MARETOPE study has assessed these processes of changes within the legal and regulatory framework of public transport. The result of that study, the MARETOPE Handbook, provides a good overview on how to assess the need for change and how to put it into force successfully.[10]

6.2 Identify policy goals

> *"Only by setting clear objectives will it be possible to develop successful and recognised processes for organising public transport"*[11]

For most public transport authorities, the main aim might be "more and better public transport for fewer subsidies". Yet, such general statements are not directly usable: What level of quality does the authority wish and what price is the authority willing to pay for it? Are these aims in accordance with passenger needs?

Transport policy aims cannot be limited to transport related objectives.[12] Other urban policies such as social cohesion, environmental protection and economic development have to be taken into account as well. Some further important aspects are the financial aims of the authority and the objectives with respect to the market structure. The European Commission laid down its aims in the White Paper on the future of public trans-

[9] See previous footnote.

[10] See MARETOPE Handbook (2003).

[11] UITP (2005, p. 18).

[12] Some of the following aspects are based on UITP (2003, p. 19) and Metropolitan Consulting Group, Kompetenz Center Wettbewerb and Innconsult (2005, p. 392-393).

port.[13] These aims form a basis for the PSOR, which tries to improve quality; service and better usage of public funds (see PSOR Art. 1.1).

The following inventory provides an overview of typical aims that authorities may want to achieve. Although this list cannot be exhaustive, it may provide a brief overview of what transport policy aims (strategic level) may be in practice. To be able to align the aims with the needs of passengers, it is recommended to gather information on demand for public transport before starting the process identifying the aims of the authority. The following box provides a list of items.

Inventory of typical policy aims within public transport

Transport policy
- Ensure mobility
- Link individual with public transport
- Enhance total transport situation
- Traffic safety
- Reliability of services
- Increase market share of public transport within the intermodal market: influence the modal split, e.g. also by parking policy

Social policy: support for specific target groups
- People with limited mobility
- People with low incomes
- Young and elderly
- Pupils, students and apprentices
- Accessibility for all layers/generations of the population
- Employees of the operator

Environmental policy
- Reduce emission of pollutants, e.g. reduction of global warming gas emissions
- Noise reduction
- Quality of life in urban areas
- Protection of vulnerable rural areas
- Efficient energy use

Structural and economic policy (regional development): enhance services within specific areas
- Land-use policy
- Site-related factors
- Regional structure
- Location trends
- Support for small and medium sized enterprises
- Infrastructure policy – establishing capacities, regulations for use and financing the public transport infrastructure

Budgetary aspects

[13] European Commission (2001): WHITE PAPER "European transport policy for 2010 : time to decide", 11932/01 (COM(2001) 370 final).

- Spent more money on public transport
- Freeze budget
- Reduce budget
- Use incentives to enhance efficiency
- Willingness to bear risk by the authority

As can be seen in the contract cases (see appendix) authorities are trying to realise several policy aims within public transport.

Affordability of public transport for passengers is one of such aims. According to PSOR Art. 3.2, maximum tariffs can be regulated either by public service contracts or by general rules. Some further aspects on how to regulate maximum tariffs can be found in PSOR Art. 3.3.

Affordability of public transport for passengers

Public transport is often required to deliver an adequate quality of services at an affordable fare level. Across Europe, different approaches have been used to achieve this general aim.

- Within the deregulated British bus market (pure market initiative), the fare level is set by the operator. The fare level is reflecting the willingness to pay of potential passengers for a specific level of quality. However, local authorities can create reduced fares for some categories of citizens (e.g. handicapped, elderly, students, etc.) These so-called 'concessionary fare schemes' are then compensated to the operators. Free travel to elderly people is currently funded through such arrangements.
- In some other European areas, the fare level is directly set by the organising authorities. When these authorities use gross cost contracts for the realisation of bus services (e.g. Stockholm, Copenhagen, London), the operator is not directly responsible for revenues, and the authority has all possibility to set the fares directly (and to carry all associated risks).
- In further European areas where net cost contracts are used, the operator may be made responsible of fare setting. In such cases, the contracts with the authorities may include specific fare requirements for specific categories of passengers, or a maximum fare increase rate per year, or other mandatory approval procedures for fare amendments (see the cases of Lyon (F), Grenland (N), Haarlem (NL), etc.) In many German conurbations, all operators have to apply an integrated fare scheme set up by a *Verkehrsverbund* (often under the advice of the operators, e.g. *Hamburger Verkehrsverbund*).

Furthermore, the PSOR determines possibilities to support the rights of employees within Art. 4.7., what is already done in practice by several authorities.

London (GB): Tendering of bus route contracts with regulations for employees

Route operators may change after the re-tendering of bus services in the London area. Securing the position of the employees therefore might be an important policy aim.

The Transfer of Undertakings (Protection of Employment) Regulations 2006 (SI 2006/246) is the main piece of legislation governing the transfer of an undertaking, or part of one, to another. The regulations are designed to protect the rights of employees in a transfer situation enabling them to enjoy the same terms and conditions, with continuity of employment, as formerly.

Other examples pertain to specific environmental aims. Authorities can decide to promote this through specific requirements to public transport vehicles.

Frankfurt/M. (D): Tendering of bus route bundle contracts with environmental incentives

traffiQ, the organising authority responsible for local public transport services within the city of Frankfurt/M., tendered a 6-year gross cost contract with environmental incentives for a sub-network (3.3 million timetable-km/year) in 2006.

One main policy aim within the tendering procedures was the reduction of air pollution by demanding high anti-pollution standards in order to fulfil the European anti-pollution regime. The operator of this bundle now uses vehicles already fulfilling the EEV-standards for gas emissions.

Once objectives are identified, operators could ask about the validity of these aims in the medium and long term. From an operator's point of view, a minimum of guarantees is needed to ensure that long-term investment into service improvements are not frustrated by short-term election considerations and political change. This relates especially to decisions on the regulatory and legal framework and on financing, which have a great influence on the functioning of local public transport. One possibility might be to introduce such guarantees into public service contracts with sufficient contract duration.

6.3 Analysis of relevant local circumstances

To be able to properly translate policy aims into tactical means (service concepts), the relevant local circumstances have to be identified and taken into account. Numerous aspects, tasks and competences might have an impact on public transport. Some of them, such as land-use planning, have to be recognised carefully too. The following chapter tries to give a brief overview of main local circumstances that have to be analysed if and to what extent they may influence the extent to which the strategic aims of the authority can be implemented.

It is useful to analyse the local organisation in a first step. It is recommended to gain a good overview on the present division of tasks, competences and responsibilities between the operators and the public authorities. Some further aspects to analyse are legal and economic aspects and the existing market structure as well as the existing transport system and geographical aspects. It is recommended to examine current local circumstances from an authority's as well as from an operator's point of view.[14] See the following box for a list of items.

Inventory of relevant local circumstances

Existing local organisation of public transport
- Identification of roles and duties of authorities, public transport authorities and operators
- Localisation of information and skills
- Localisation of decision making powers for policy making (strategic level), service design (tactical level) and operational decisions (operational level)

Legal restrictions
- EU-legal framework
- National/local legal framework
- Awarding
- Contracting
- Overcompensation
- Right of initiative
- Existing awarding and contracting procedures
- Existing contractual regulations

Economic restrictions
- Economic situation of the operator market (including ability to bear risk)
- Financial/budgetary aspects
- Ability to bear risk by the authority

[14] Some methods on how to select relevant data are described in the MARETOPE Handbook (2003, p. 51 to 60).

Market structure of operators
- Number and size
- Ownership
- Capabilities
- Efficiency

Existing transport system
- Infrastructure, e.g. (existing railways, existing depots)
- Vehicles
- Network design
- Level of quality of public transport services
- Existing databases, e.g. (passenger data , modal split figures)

Spatial/geographical restrictions

Budgetary constraints may hinder necessary investments and even redevelopments, especially for infrastructure or vehicles in rail bound systems. Several solutions can be observed to solve public budgetary constraints.

Krakow (PL): Investment with support of the EBRD

The municipal operator for Krakow, MPK, and the city of Krakow assessed high investment needs to renovate and expand the existing tramway lines and invest into new tram vehicles. Due to budgetary constraints the city of Krakow was not able to provide MPK with the necessary budget to undertake the planned investments. So MPK asked the European Bank for Reconstruction and Development (EBRD) for financial support, which was given under the constraint to sign a public service contract between MPK and the city of Krakow. This financial support enabled MPK to invest into 24 new low floor tram vehicles and to reconstruct two sections of tramway infrastructure (5 km).

Barcelona (E): Investment with Public Private Partnership

The construction and operation of the new tramway line in Barcelona (Diagonal-Baix Llobregat Tramway) was set up as a public private partnership (PPP). The contract to build, operate and transfer the necessary investments (BOT-contract) was based on a competitive tendering procedure, for which the operators (TMB+FGC) had to compete (in spite of the existent exclusivity). The winning consortium is a PPP with the following participations: 20% TMB+FGC and 80% private companies. By using PPP Barcelona acquired further private capital to enable the investment into the new tramline.

6.4 From policy goals towards service design

Based on the analysis of local circumstances and after having rebalanced its strategic objectives, the next (and third) step for the authority is to move from policy goals (strategic aims) towards service design (tactical means). A non-ambiguous division of tasks, responsibilities and competences between the authorities and the operators is needed to be able to organise this market in the most efficient way as a precondition for improvement of quality, service and better usage of public funds.[15] This may also avoid ending up with a confusing structure with only disappointing results where no one really feels responsible for this service design task.

Main options

One of the main questions within this step is to what extent (how detailed) the design of public transport services has to be described by the authority. The allocation of decision-making at the tactical level (service design) between operator and authority is the core topic at this stage (Figure 15). Main questions are (see also section 5.3.1):

- Will the operator be requested to design the services and re-design the services during the contract period?
- Will the operator be allowed to decide autonomously on these matters or does the authority need to keep a decision power on this?

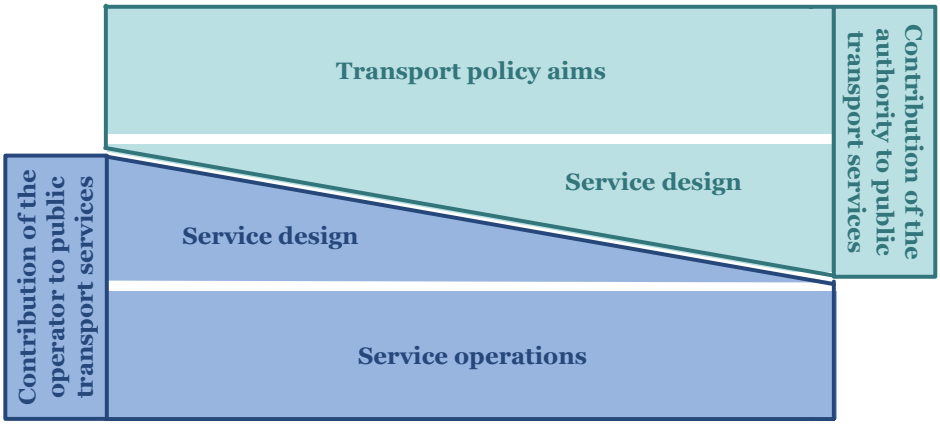


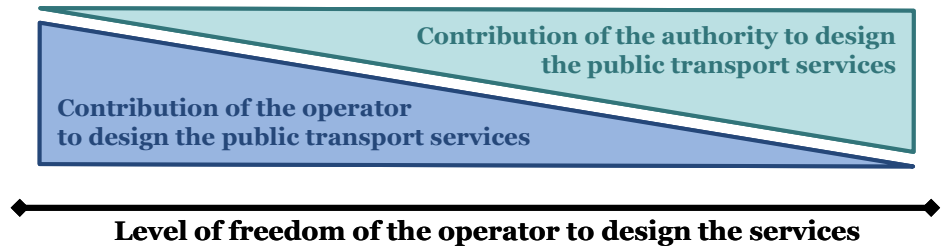
Figure 15 Contribution of the contracting parties to public transport services

If the authority decides to give a high degree of freedom to the operator, there might be less need to describe several aspects in detail, but this will then have to be balanced by adequate contractual incentives inducing the operator to serve passenger demand and to realise policy objectives. In this case, we will be in **functional** planning (Figure 16).

If the authority wants to contribute to the service design to a large extent, the operator will have less or no direct involvement with service

[15] See also: UITP, A Market in Motion (2005, p. 10).

design. No direct link will exist with passenger ridership and specific operational quality incentives will be needed to induce the operator to provide the services planned by the authority with the adequate level of operational quality. In this case, we will be in **constructive** planning (Figure 16).



Functional	Intermediate	Constructive
Steering via functionally described aims	Steering via minimum standards and supporting guidelines	Steering via detailed design of services

Figure 16 Service design freedom for the operator

Functional and constructive planning are the terms used in this study to explain the level of freedom of the operator to design the services. Some other studies, like Atkins (2005, p. 5) differentiate between an "outline specification" (similar to 'functional') and a "detailed specification" (similar to 'constructive').

Recommendations for the allocation of responsibilities

In order to reach a decision concerning the appropriate level of service design freedom to the operator, it is recommended to answer the following preliminary questions first:[16]

- To what extent can a natural overlap between the commercial and other interests of the operator, the interests of the public as well as the interests of the authorities be expected?
- Which interests need to be harmonised (and how)?
- Which interests are in conflict with each other?

The clarification of the above questions may enable the authority to decide upon its contribution within the market and to organise the public transport services by selecting an appropriate model. Tasks and responsibilities which meet the interests of all actors could, in principle, be left to market forces.

Taking the strategic (policy) objectives into account, tasks can then be allocated to the authority or the operator according to who is best able to carry it out. Please note that the allocation of responsibilities determines the appropriate risk allocation between the operator and the authority (which will be explained in chapter 7). Whoever takes the opportunities

[16] Based on UITP (2005, p. 14).

and risk is the party most appropriate to influence the corresponding features. While drafting the contract (see chapter 7), it is recommended to rebalance between the allocation of risk and the allocation of responsibilities if necessary.

Grenland (N): High level of freedom (functional awarding) for bus services

Grenland determined the main objective for the public transport in the region in the "Public Transport plan for Telemark 2003-2009". The aim is to increase the number of public transport trips per inhabitant from 39 to 50 in the short run and up to 70 in the long run. These policy aims were translated into tactical means via the public service contract, which laid down the contractual goal to develop the best service possible by using quality tendering for a fixed subsidy level.

Grenland tendered out a network contract for the operation and design of the urban bus network. The operator is submitted to full production cost risk and revenue risk and has considerable freedom in service design during the whole contract life. Due to the high contribution of the operator to the design of the public transport services, this contract can be classified as functional.

Integration of public transport service design in Verkehrsverbund areas (D)

In many metropolitan areas across the EU, and in most urban areas in Germany, the policy aim of an integrated public transport system has been achieved through the establishment of regional organising authorities. In Germany, these are mostly owned by the competent authorities (e.g. Rhein-Main-Verkehrsverbund and Nordhessischer Verkehrsverbund in the Land of Hesse, Germany). Such Verkehrsverbünde take the tactical decisions: they integrate services of different operators within the area of several competent authorities into one integrated public transport system, providing an integrated fare scheme, coordinated timetables, sales and market communication. In most of these areas, the service level and the quality of services are also determined by the Verkehrsverbund.

Note that the public transport services are operated by different operators under different types of contract. All public service contracts awarded in these regions include, though, the obligation to integrate services into the regional public transport system.

London (GB): Intermediate level of freedom (negotiated) for Dockland Light Railway

The Dockland Light Railway at the Eastern area of London was awarded in a competitive procedure. The aim of the authority (as already explained above) is to support the vision of London as an exemplary sustainable world city by increasing the capacity, reliability, efficiency, quality and integration of the transport system. Specific contract goals are:

- Provide a service tailored to the needs of residents of and commuters to London Docklands and surrounding areas.
- Maintain and enhance the reputation of DLR as a safe, reliable, high quality and frequent train service.
- Secure effective management and maintenance of the franchised asset portfolio
- Work in partnership with infrastructure concessionaires and other stakeholders to deliver capital projects
- Deliver a service with performance and quality that represents value for money for DLRL, TfL and passengers.
- Provide marketing services for the railway to ensure revenue maximisation.

The contract was awarded following a competitive tendering process. Bids are evaluated on the basis of the most economically advantageous bid for DLR. A competitive awarding procedure was used, were bidders need to pre-qualify and hand in an initial bid. Due to high complexity (including the opening of new infrastructure projects across the life of the contract) negotiations with preferred bidders were held at the final stage of the process before awarding the contract.

Lyon (F) and Porto (P): Competitive tendering with pre-selection

The authority in Lyon used competitive tendering with pre-selection. After selecting preferred bidders, the negotiating procedure started according to the French legislation on "Délégation de Service Public".

The concession for the building and operating of the metro of Porto was also awarded in a similar way. According to the concession a competitive public tender must be launched by "Metro do Porto" for the design, building, equipment, financing and operation during the initial period. The process was done in two steps: open competitive tender for prequalification and direct negotiations with the two consortia with higher scores.

Direct awards are usually awarded in a negotiated way, too. Examples are Amsterdam and Krakow, were specific local constraints had to be taken into account.

London (GB): Low level of freedom (constructive awarding) for urban bus services

London awarded about 700 contracts for single bus routes in competitive tendering. The operators only bear the production cost risk, while the authority carries the revenue risk. All service planning is done by "Transport for London" (TfL). The London example is unique in the UK, as the rest of Britain has a deregulated system.

Main public transport policy goals of the city of London are set out in the Mayor's Transport Strategy. To support the vision of London as an exemplary sustainable world city, the Strategy aims to increase the capacity, reliability, efficiency, quality and integration of the transport system. London chose for a high contribution of the authority in the service design (constructive contract) to realise its ambitious aims within a complex route network. TfL London Buses defines the network and specifies minimum service levels (such as intervals) to be provided by the operators.

When allocating responsibilities between authority and operator, it is wise to ensure that the actors are enabled to make the best use of their expertise in their own field of competence. Obviously, this will depend on the specific local situation. The following points can be mentioned:

- Knowledge and expertise of (potential) operators;
- Knowledge and expertise within the (transport) authority or related public bodies
- Willingness to invest in the creation of the required knowledge;
- Complexity of implementation and the need to use incentives;
- Expected need for monitoring of the operator;
- Budget for authority personnel
- Etc.

Note that this issue should also be looked at in a longer time perspective. Knowledge that is, e.g., not present on the side of the operator can be developed if operators perceive sufficient demand and usage for that knowledge. Conversely, if authorities stop using the knowledge of operators (e.g. on marketing), operators will eventually not invest in this knowledge anymore. This is a chicken-and-egg situation. When introducing a specific form of relation and contracting, it is therefore recommendable to start with an approach that is suitable to the specific local possibilities of the authority and the operator and not to introduce too complex mechanisms no one can handle.[17]

It is also important to save the expertise within the local public transport system, especially with respect to rail infrastructure. In contrast to the knowledge about other infrastructural aspects, like streets or buildings, this expertise is often concentrated at the municipal operators (when existing), and not within the municipal administration. This issue needs

[17] To enable both contracting parties to gather experiences before introducing tendering, it might be an option to use a virtual tendering (see Bräuer, Herr, Pinz and Wille, 2005).

to receive particular attention when the introduction of competition is contemplated, such as to avoid unfair competition

After having determined the tactical means the authority is able to select appropriate contract features and draft the contract. The following chapter describes the process of choosing these features.

7 Contract drafting

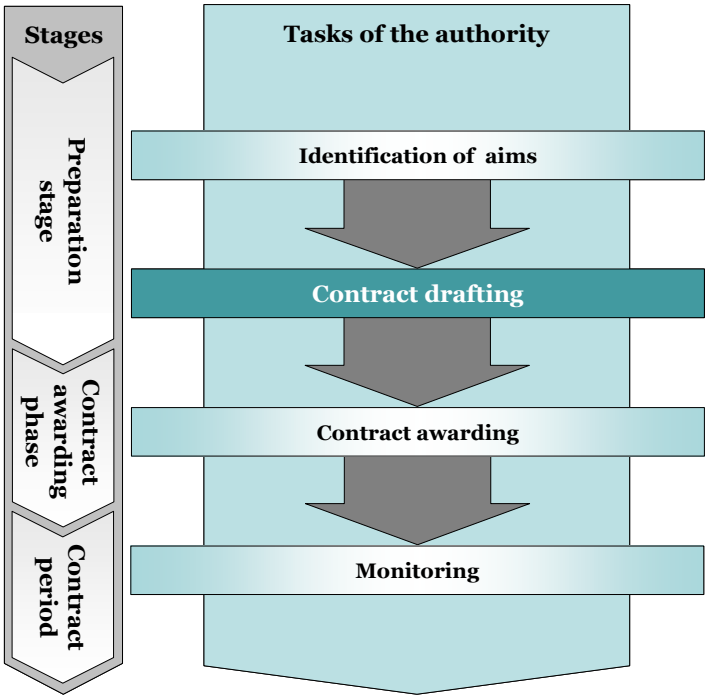


Figure 17 Contract drafting

Drafting a suitable contract is an important task. As can be seen in the analysis of chapter 2 and 3, there is a great variety of contractual practices across Europe. The specific local circumstances and the different transport policy aims of the different authorities obviously result in very specific local requirements. Public service contracts have to be designed properly to fulfil these requirements.

Agreements have to be made between authorities and operators pertaining to risk allocation, planning and design of services and control of performances. The following sections will focus on these aspects. The first section will explain the structure of this whole chapter in detail.

Important remark: *Please note that the following text can only present general recommendations on get on the right track. Any contract drafting requires specific advice in order to prevent mistakes and unacceptable results in the contract-awarding phase or during contract realisation.*

7.1 Method to set up a contract

As can be seen in the analysis of chapter 2 and 3, there is no "one-size-fits-all" public service contract within public transport, and none of the experts expect its development. However, some contractual features fit better for the specific local situation.

The process of drafting a suitable contract is comparable to building a house with Lego bricks, as some of us did in our childhood. During the building process, we had to make several decisions, e.g. what kind of brick to select to build the next feature. One of the first (and maybe one of the most important) decisions was the selection of the plate to build on: small, medium or large. At the next step, we selected the main features of the house: colour of the stones for the walls, size of the door and of the windows and type of the roof. At the final stage, we tried to arrange some supplements to finish the work to our satisfaction. Moreover, we always had to bear in mind that there are several limiting factors (e.g. limited number of stones, windows and doors) and that the decision about one feature always relates to the possibilities of another feature (like e.g. colour of stones and roof).

To fulfil the specific local needs within public transport while drafting a public service contract, the authority has to decide upon several features as well. Based on the policy aims, the implementation of the tactical means (service design) and the existing local circumstances identified by the authority within chapter 6, the second task of the authority in the course of the preparation stage is now to draft a suitable contract (as can be seen in the figure on the left side):

- As indicated in Figure 18, the first step for the authority within this task is to become aware of the issue of risk management. Because almost all contract terms do have consequences on what will be an appropriate risk allocation between operator and authority, we will stress the importance of matters related to risk by presenting them first within section 7.2. Yet, the overall (and final) risk allocation cannot be determined until the process has reached the final stage (section 7.5).
- The second step within this task of contract drafting will be the planning and design of services (section 7.3). This task includes the definition of minimum contract terms, such as the quality level and several other obligations. Furthermore, the contracting parties have to agree both on the rights and duties as well as on the ability to initiate and decide upon certain issues. This allocation of responsibilities is based on section 6.4 which addressed further issues related to service design.
- The way to control performances, either by using incentives and/or monitoring, is the third step (section 7.4).
- The final step is the final risk (re-)allocation, with particular attention paid to contract terms related to risk (section 7.5).

During the drafting process, the authority should always keep in mind the (limiting) local circumstances and the fact that a decision upon one feature always restricts the possibilities of another feature, which makes adjustments in the course of the drafting process unavoidable. However, the main dimensions influencing the drafting of an appropriate contract are the allocation of risk and responsibilities between the contracting parties and the level of control selected.

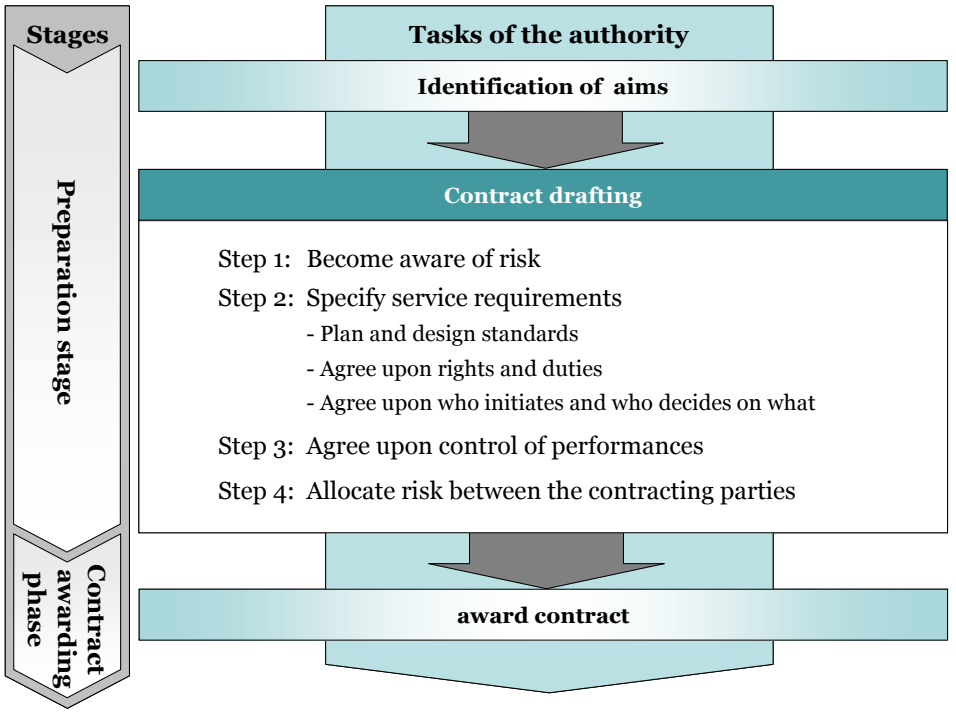


Figure 18 Method to set up the contract

The following paragraphs present the main features of contract drafting. The minimum requirements and the no-go areas for each feature, as well as the requirements for the contracting moment and for the contracting period, will be explained from a mainly economic perspective. Further major requirements of the PSOR are added too.

7.2 General remarks on risk

Contracts in public transport allocate various financial risks among the contracting parties. Furthermore, various incentive mechanisms can also be added, such as quality incentives.

Definition of risk components

Due to their high influence on the financial performance, the main risks in the public transport world are cost risks and revenue risks:

Cost risks: can be divided into two main components:

- **Operational cost risks**: who carries the risk on possible variations of the cost of operating the services? In other words: if operational costs are higher/lower than forecasted at the beginning of the contract, who will support the additional loss or make the additional benefit? These risks can be divided between:
  - External risk: Risk that can not be influenced by the operator at all (e.g. flooding of streets in case of natural disaster) or risk that can be influenced by the operator indirectly only (but usually only to a little extent): energy price, price of materials, staff costs (partially),

    - Internal risk: Risk can be influenced directly by the operator: operational costs, maintenance costs (production process decisions, maintenance of vehicles to avoid breakdown, etc.)
- **Investment risks**: who caries the risk on the property and value of assets (infrastructures and vehicles)? This relates essentially to the residual value of the assets at the end of the contract period.

Revenue risks: who caries the risk related to the amount of revenue expected from passenger receipts? In other words: if passenger revenues are higher/lower than expected at the beginning of the contract, who will benefit from the additional profit or make the additional loss.

Besides the above-mentioned items, two more items should be added:
- **Risk out of additional incentives,** strengthening either the risk out of operational performance and/or patronage performance
- **Risk out of operational complexity**, such as risk resulting from large and/or complex network, new developed vehicles with risk of teething troubles, etc.

With respect to the schedule of awarding contracts (see section 5.5), the realisation of risk can occur either in the contract awarding stage or during the contract period and be triggered by the following items:

At the awarding stage:
- Bad data sources for calculations (e.g. bad data quality with respect to passenger figures in a net cost contract, bad data sources to plan production processes)
- Contract with high risk level in itself
    - Extent to which external risks is taken over by authority
    - Type of contract (gross-cost, net-cost, etc.)
    - Level of additional incentives

During the contract period
- External risks
- Internal risks (bad operations)
- Wrong calculation by the operator

Typical type of risk allocation and contract forms

Risk can be allocated and shared in various ways between a transport authority and a transport operator. One way to represent this in a simplified way is to use the three following typical contract forms:
- **The operator bears no risk**: with a simple 'management contract' (MC – the authority bears both risks, the operator none) as a typical case;
- **The operator bears the cost risk**: with a simple 'gross-cost contract' (GC – the operator bears the production cost risk, the authority keeps the revenue risk) as a typical case;
- **The operator bears the cost risk and the revenue risk**: with a simple 'net-cost contract' (NC – the operator bears (the balance of) both risks, the authority none) as a typical case.

Figure 19 gives a simplified representation of some of the possibilities using this traditional distinction. As illustrated by the grey shaded boxes

in the figure, many intermediate forms of risk sharing can in fact be imagined. This graph gives only a limited illustration of all possibilities.

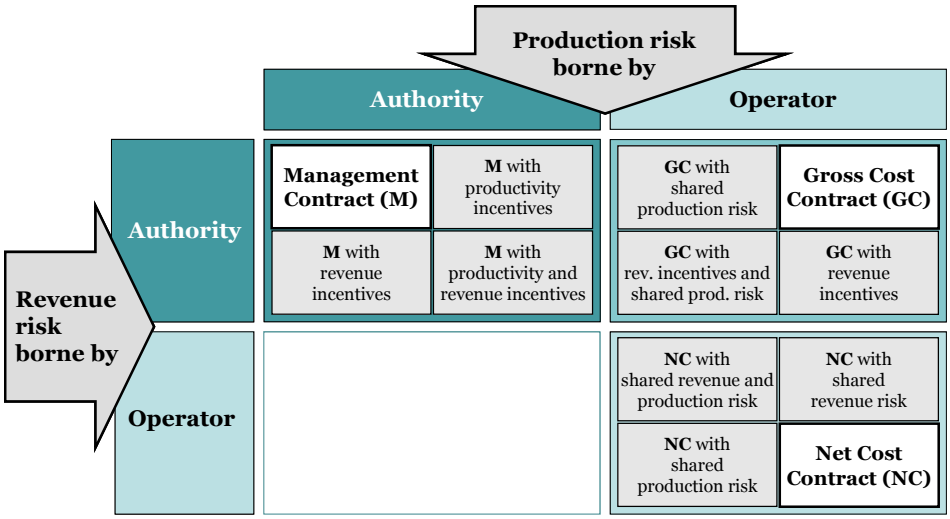


Figure 19 Simple representation of risk division

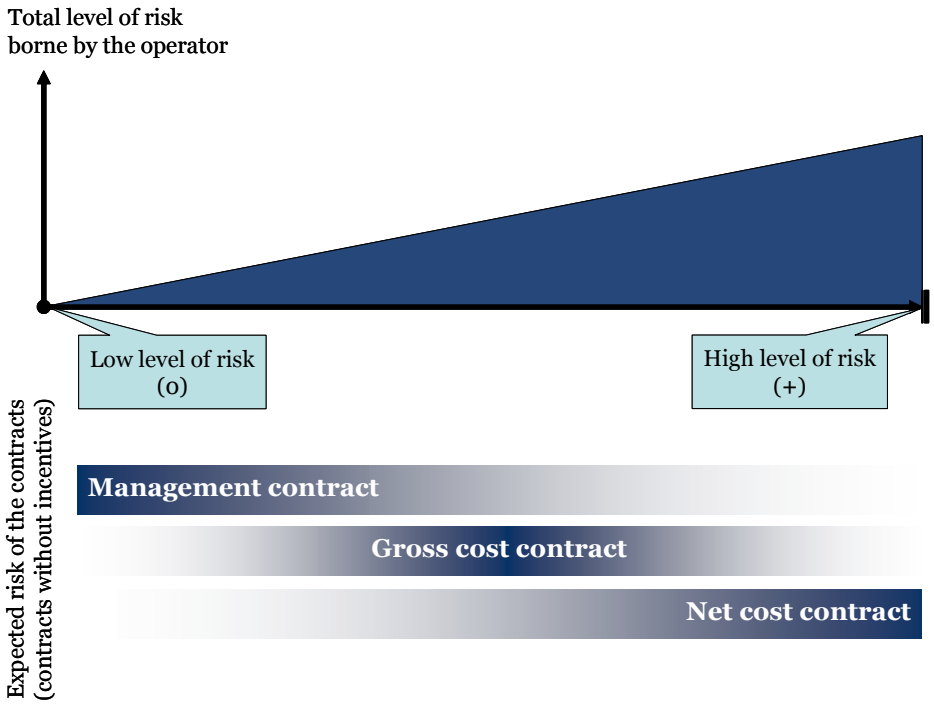


Figure 20 Risk continuum

This may result in an increasing level of risk borne by the operator along the following continuum (Figure 20; please note, that this is a simplified schematic figure): from a general perspective (without considering incentives), management contracts create a rather low level of risk. On the contrary, net cost contracts create a rather high level of risk. Gross cost contracts can be seen as located somewhere in between.

The risk allocation chosen leads to a specific contract payment between authority and operator. In the case of a management contract, the payment represents a management fee for the management of the network. In the case of a gross-cost contract, the payment represents the expected production cost for the services contracted, including a fair profit. By allocating only the production risk to the operator, authorities should also be aware that the revenue risk remains on the side of the authority.

Incentivised gross cost contracts

London uses gross cost contracts for in total 700 bus contracts in London, one for each line. These contracts include additional production incentives or penalties based on a "Quality Incentive Contract". Operators are able to earn +15% of the contract price in bonus payments and penalty payments can be 10%.

Stockholm uses gross cost contracts for route bundles were quality incentives can be up to +/-23% of the contract price, based on the monitoring of punctuality and customer's perception of the service. This is a substantial incentive for the operators to improve the quality of the service.

Elmshorn in Germany and Halmstad in Sweden use gross cost contracts with passenger incentives. These are in fact more a mixed form of gross cost contract and net cost contract with shared additional fare box revenue. The operator in Elmshorn receives € 0,35 per additional passenger, based on average calculation for the first year of operation. In both cases the operator is also responsible for significant parts of planning and development of the service. This is essential for the balance between the responsibility and incentives in the contract.

There are more of such gross cost contracts in Europe with shared passenger incentives to be observed in Europe and one can expect that the distinction between gross cost contract and net cost contracts might become vaguer in the future.

In the case of contracts where the operator bears both risks (such as in net-cost contracts), the payment represents the expected balance of production costs minus revenues. Note that, depending on the economic circumstances, this payment can either be

- A payment from the authority to the operator in case of an expected need for public co-financing;
- No payment between operator and authority in case revenues are expected to balance costs.
- Payment from the operator to the authority in case of an expected surplus with regard to the operation of the services.

The benefit of using net cost contracts is the link between patronage and financial incentives to the operator. This can also be a problem if the operator has only limited power to influence patronage in the short or long term as the existence of a competing operator in the same area or external factors like parking policy changes or car usage cost can influence passenger demand more significantly than service improvements made by the operator. It is therefore perhaps not surprising that many

net cost contracts studied in this project give some or extensive service design responsibility to the operators.

Sundsvall (S)

An early example of a tendered net cost contract in Scandinavia is the urban bus system in Sundsvall in Sweden. The Sundsvall example is a pure net cost contract without additional passenger incentives, but there are specific claims for 2% passenger increase included in the contract. If the level is below 2%, the operator must increase its marketing effort up to max. 4% of subsidies.

The service design for the first year is defined by the authority and can only be redefined by a mutual agreement between the parties. For the rest of the contract period the operator is free to revise the service, but not to reduce the revenue km beyond the initial service level. The network design must also at all time meet specific accessibility criteria defined by the authority in the contract:

- 80% of the inhabitants must live within the area of at least 400 metres from a bus stop
- 90% of the inhabitants must live within the area of at least 600 metres from a bus stop
- The network must be coordinated at specific locations defined in the contract

Risk sharing

There are various ways to arrange the allocation of risks between contracting parties[18] (no matter whether production cost risk or revenue risk):

- **Full allocation of the complete risk to one of the contracting parties**: the full divergence between the expected amount of costs and/or revenues and the realised amount is borne by the operator (or by the authority).
- **Shared allocation of risk**: a specific percentage of risk is allocated to each party (e.g. 50% for each party). In this case, the divergence between expected and realised amount is shared between both parties to the contract.
- **Shared allocation of risk with thresholds**: this is similar to the shared allocation presented above, except that the agreed sharing varies with the size of the divergence (e.g. 100% to operator up to €1mln divergence, then 50%/50%, etc.)

In the case of net-cost contracts with shared risks, we need furthermore to distinguish between the allocation of both cost and revenue risks in a single unit based upon the expected operational deficit (expected total costs of production minus expected passenger revenues), and an allocation based upon two risk units, one related to the cost side of the con-

[18] These parties could be: the authority, a public planning company, operators, subcontractors, etc. all depending on the exact organisational form chosen at the local level.

tract and the other related to the revenue side. This distinction becomes important especially when different thresholds are defined for risk sharing for both of these components.

Lyon (F)

The network management contract between the transport authority (owning all assets) and the transport operator foresees various forms of risk sharing between operator and authority. (See appendix contract tables).

Santiago de Compostella (E)

Santiago de Compostella in Spain has a delegated management contract awarded based on a quality tendering process. This contract is an intermediate contract between gross and net cost contract, were the authorities and the operator share the extra fare box revenue (50/50) and publicity revenue (70/30). This is a 10 years contract and the contract can be extended if the operator meets requirements regarding:

- Development in demand (passenger-km)
- Development in quality index (perceived and realised quality)
- Audits to the accounts
- Awareness campaigns

Economic effects of risk

The items presented above are related to pure expenses and revenues related to the production and selling of the passenger transport services. Divergence between expectations and realisations of these amounts represent a risk, and contracts allocate these risks in different ways to the contracting parties. The allocation of these risks creates incentives for the parties bearing those risks to ensure a more favourable value of these amounts (e.g. lowering costs and increasing revenues, while respecting the contractual requirements pertaining to service definition and quality).

The authority has to decide upon how to allocate risk between contracting parties appropriately. Risk can have a negative effect on the outcome of contracting, especially when using competitive awarding:

- The higher the risk, the higher the risk premium the operator is calculating (increasing the subsidy to be paid by the authority);
- A very high level of risk, resulting out of a high level of uncertainty, may result in a higher danger of insolvency for operators in case of a full realisation of the risk;
- The higher the risk, the lower the number of bidders (high entry barriers).

Therefore, from a very schematic point of view, risk can be classified as follows:

- Low risk: Predictable for operators and/or not critical for operators in case of realisation; operators will calculate a low risk premium
- High risk: High uncertainty and/or critical for operator in case of realisation; operators will calculate a high risk premium
- Unbearable risk: Unpredictable and critical for operator in case of realisation; risk not bearable for operators (market entry barrier)

On the other hand, the authority has to include incentives to encourage the operator to perform well and to take full advantage of the operator's potential to optimise. Gross cost contracts (where the production risk is borne by the operator), for example will encourage the operator to optimize the operation (as far as possible) within the framework of the existing contract (because this increases his profit directly).

Authorities have to be aware of the trade-off between the positive effect of incentives and the negative effect of risks immanent in these incentives. In principle, the question (although difficult to answer) might be: when is the risk premium calculated by the operator lower than the positive effects from using incentives?

Legal effects of risk

The level of risk influences the contract from a legal point of view. One of the aspects is the selection of the appropriate awarding procedure, as can be seen in chapter 8. Another aspect relates to the problem of overcompensation, which will be explained in the following.

In many cases, public transport contracts are at least partly funded by public funds. For this reason, European rules on state aid are applicable. In most member states, the existing regulation 1191/69/EEC governs this aspect, laying down restrictions on public payments to undertakings. Basically, an authority can compensate operators only for extra costs incurred by obligations fixed by the authority. If the regulation 1191/69/EEC does not apply, the rules on state aid as laid down in EU primary law come into force. These also oblige the authority to refrain from compensating more than the cost incurred due to the discharge of the service (which is also known as 'overcompensation').

The European Court of Justice (ECJ) laid down specific rules on compensation in case the regulation 1191/69/EEC does not apply in its 'Altmark Trans' judgement (C-280/00). These rules are the following:

- Recipients must have public service obligations to discharge and these must be clearly identified
- Parameters for compensation must be set in advance in an objective and transparent manner
- Compensation cannot exceed all or part of the costs incurred in the discharge of public service obligations
- Where the recipient is not chosen by public procurement procedure, compensation must be based on comparison with the costs which would have to be borne by a typical undertaking which is well run and equipped.

According to these rules, compensation is not allowed to exceed the costs which would have to be borne by a typical undertaking which is well run and equipped. These rules are just an adoption of what can be found in any primary or secondary European law on state aid. Overcompensation has to be avoided so as not to give the recipient an unjustified advantage which he could exploit when competing with others who are not that well compensated. The authority has to draw a linkage between risk (in the form of costs) and compensation when drafting a contract.

Wittenberg (D): Fixed compensation per passenger

In the Wittenberg case, the European Commission ruled that the incentive scheme (fixed compensation for each passenger transported) written into the contract may result in an immanent risk of overcompensation, since there is no linkage between the cost per passenger (which decreases with an increase in the number of passengers) and the fixed incentive scheme (which can also result in under compensation). The European Commission ruled that the contract did not comply with European state aid rules from this point of view.

Nevertheless, they notified (and approved) the incentive scheme with respect to the positive effect for public transport in that region. According to the Commission, this can be expected from the underlying incentive scheme and corresponds to the aims of the Commission as laid down in chapter IV of the White Book of the Commission[19]. The Wittenberg case shows that overcompensation is a real issue when drafting a contract, since authorities cannot always count on the commission to grant such an exemption.

The obligation to avoid overcompensation is also one of the key elements of the PSOR rules on mandatory contract content and public service compensation:

- According to article 6.1 PSOR, all compensation connected with a general rule or a public service contract must conform to the provisions laid down in article 4, irrespective of how the contract was awarded. In case of a direct award to an operator in accordance with one of the exemptions granted by the PSOR for such direct awards the compensation must also conform with certain extra provisions laid down in the PSOR annex.
- Article 4.1 demands a clear definition of the public service obligations with which the public service operator must comply, including the geographical area concerned. The ban on overcompensation is laid down in Article 4.2 which states clearly that the parameters on the basis of which the compensation payment is calculated must be established in advance, in an objective and transparent manner, and in a way that prevents overcompensation (second and third Altmark-criteria).
- In case of contracts that are directly awarded in accordance with the PSOR the compensation parameters shall be determined in such a

[19] See White Book of the European Commission (2001) – COM(2001) 370 final.

way that no compensation payment may exceed the amount required to cover the net financial effect on costs and revenues incurred in discharging the public service obligations, taking account of revenue relating thereto kept by the public service operator and a reasonable profit (article 4.2 PSOR). Basically, this establishes the second and third Altmark-criteria as the basis for any compensation in case of a direct award. Rules on how to calculate the crucial 'net financial effect' in case of a direct award can be found in the PSOR annex. The avoidance of overcompensation is laid down as a key element of any calculation in the annex as well. In section three of the annex, it is clearly stated that compliance with the public service obligation may have an impact on possible transport activities of an operator beyond the public service obligation(s) in question. In order to avoid overcompensation or a lack of compensation, quantifiable financial effects on the operator's network concerned, shall therefore be taken into account when calculating the net financial effect.

Thus, one can clearly say that the avoidance of overcompensation is one of the most prominent features to keep in mind when agreeing on contract clauses regarding the operator's compensation within today's and the future legal framework.

7.3 Planning and design of services

Planning and design of public transport services have to be based upon the policy aims defined by the authority (see section ☐) and the local circumstances (see section 6.3). The contract content pertaining to planning and design of the public transport services can then be determined after having taken the main decisions related to the way policy aims are to be translated into service design (i.e. decisions on the roles of the contracting parties), as has done within section 6.4.

Definition of service requirements

According to PSOR Art. 4.1, public service contracts and general rules must clearly define the public service obligations with which the public service operator must comply, and the geographical areas concerned.

Contractual terms precise the role and prerogatives of the authority and the operator during the contract period, but the service level required by the authority can be described functionally for the purpose of the awarding procedure. This level will be the basis for calculations by the operators.

The following case examples illustrate both functional and constructive procedures.

Elmshorn (D): Functional tendering

The suburban district Pinneberg (located in the Hamburg area), tendered a gross-cost contract for a 5 year period, starting 2005, for the city of Elmshorn (circa 50 000 inhabitants). The contract includes a compara-

tively high bonus payment for passenger increases, introducing an incentive for this political aim. The operator receives € 0,35 for each newly gained passenger (calculation basis set within the first year of operation to avoid incalculable risk).

The service to be offered by the operator was described functionally:

- The bus service had to cover a certain area. Minimum requirements for service supply were: 2 departures per hour and stop in densely populated areas, 1 or 2 departures per hour and stop in industrial areas, 1 departure per hour and stop in rural areas und 1 departure per hour and stop during rush hour in some remote areas
- Departures with fixed scheduled frequency
- Direct link to the city centre from every stop
- Maximum travel time of 15 minutes from a bus stop within densely populated areas to the city centre
- Two bus routes, mainly intended for student transport, had to be supplied according to fixed routes and timetables
- Low-floor busses
- Passenger information in accordance with HVV standard

Within the framework of functionally described minimum standards, the operator was free to design his own routes, move existing bus stops and design his own timetable. Existing ridership data was supplied to potential operators in order to support them in the contract-awarding phase.

Grenland (N): Functional tendering

Grenland tried to get the best possible service by using quality tendering for a fixed subsidy level. They tendered a net cost contract for the operation and design of the urban bus network. The operator is free to:

- decide upon the bus size and frequency within the financial framework of the contract and capacity constraints for the busses
- adjust the service during the contract within the framework of the opening hour and capacity constraint for the buses.
- adjust fares within the general fare scale in the region

The authority defined the school service level that is fixed during the contract period and the initial service level as a minimum level.

London (GB): Constructive contract

London awarded gross cost contracts for single bus routes in competitive tendering. All service planning is done by "Transport for London" (TfL):

- Before tendering TfL London Buses defines the network and specifies minimum service levels including times of first and last buses. TfL defines the ticket products and sets the fares. TfL is also responsible for all marketing and information, sets and monitors performance standards, looks after stops, shelters and bus stations.

- During the tendering process, the bidder must provide a compliant bid but may also offer alternative options where these might offer better value to TfL. Options might include extending a route or offering alternative vehicle types or age of vehicle.
- During the contracting period, routes and timetables can be changed by TfL if circumstances have changed. This might for example be the case if a new retail development opened which generated additional demand, or where a road closure or diversion resulted in extended journey times. Contracts are under constant review and there is no limit on the number of changes which can be undertaken during a contract period.
- The operator is required to specify the number and type of vehicles to be allocated to the service. For the most part, all services on a specific route are provided by a single vehicle type. There may be some variation between vehicles allocated on weekdays and Sundays. Certain journeys may be specified with higher capacity vehicles for school demand peaks.

The routes are operated on an exclusive basis by the successful contractor. It is possible for operators to propose commercial services but TfL is under no obligation to allow participation in its ticketing schemes.

The definition of the quality level is an essential part of contract drafting. The quality level needs to be defined in line with the level of quality the authority wants to provide, but quality is a shared responsibility between the authority and the operator.

An essential feature of well-organised relationship is that it generates incentives for the contracting party responsible for service definition to examine customer expectations and to take them into account in service design. In the quality loop approach (see also Appendix B for further detail on the various dimensions of quality), this will result in the definition of the targeted quality, which expresses the ambitions of the provider in terms of service.

The definition of convergent aims and a clear agreement on the level of freedom of the operator is therefore necessary to generate the development of the appropriate service quality (see chapter 6.4). Furthermore, the selected level of freedom at the contract-awarding phase should fit to the selected level of freedom during the contract period. This is especially important when the contracting party gives service design powers to the operators, and in such a case, the authority should refrain from determining all details of service supply and design if it really wants the operator to take a responsibility for service quality. However, this will only work if appropriate incentives are put in place through the contract (see section 7.4).

European norms have been developed for quality in public transport. Two essential documents are:

- European norm on Service quality definition, targeting and measurement (EN13816) – 'Quality Loop';
- European norm on basic requirements and recommendations for systems that measure delivered service quality.

Flexibility during the contract period

Changes in external factors, political aims or passenger needs may lead to a need for amendments to service design during the contract period. Providing flexibility may be needed here to reduce the risk level for the operator.

Flexibility will be needed due to the changing nature of public transport demand. This depends, of course, of the nature of the contract:

- Constructively specified (gross-cost) contract should be specified such that the authority or the body charged with transport planning is able to modify the service production bought from service providers. Of course, this should remain fair to the operator. Unrealistic expectations should be prevented. Re-allocation of ordered capacity to routes or timetable re-planned by the authority is easier to realise than increases and decreases of the production. Marginal prices for amendments in production can be foreseen in the contract, but adequate care has to be taken, amongst others, of the differences in production costs between peak and off-peak periods.
- Functionally specified (net-cost) contracts require completely different contract clauses to allow flexibility during the contract period. Service amendments to follow demand changes should, in principle, be covered by the general set of incentives present in the contract. Nevertheless, additional contract clauses may be required to allow covering unexpected changes and/or new policy aims.

Contract should therefore contain adequate variation and termination clauses:

- Check whether there will be major changes during the contract time (e.g. a new bus lane within the centre during the contract period) and insert suitable agreement procedures on how to deal with these circumstances;
- Enable the authority and the operator to terminate (or at least renegotiate) the contract in case of major unforeseen changes with major commercial influence;
- Enable service redesign by the authority in case of constructive design, based upon fixed price list and limitations (e.g. limited increase in vehicle-km) to reduce the risk for the operator (and the authority);
- Enable service redesign by the operator after approval of the authority under all awarding models, based upon fixed price list and limitations (e.g. limited increase in vehicle-km) to reduce risk for the operator and the authority;
- Enable service redesign by the operator autonomously when using net cost contracts (with functionally designed minimal standards) while preventing negative financial impact to authority;
- Insert arbitration clauses to avoid unproductive conflicts.

Elmshorn (D): Functional tendering of network contract

Changes to the service design during the contracting period are subject to the approval of the operator and the HVV. Changes can be accepted, denied or tolerated. Accepted changes result in an adjustment of payments to the operator (based on a fixed price list), tolerated ones do not but

can nonetheless be set into effect by the operator. Nevertheless, the operational responsibility lies with the operator. Within the designed framework, he is free to allocate his resources.

The authority can demand changes to the service up to an amount of 10 % of the contract volume. Changes of schedule/network (max. 10 % of the value in total) are paid to the operator based on the following price components (who are calculated by the operator in his bid and fixed within the contract):

- Price per bus
- Price per schedule kilometre
- Price per schedule hours

Warsaw (PL): Constructive tendering of route bundle contracts

Competitive tendering of a share of the bus services in the Warsaw urban area with a gross cost contract (for 10 years) was introduced by the authority who defines the routes, fares and the timetable before the tendering process. The vehicle schedules are determined by the authority too. The rest of the decisions have to be made by the operator. The operator does not have rights to define or change service design. The Authority is allowed to change production quantities up to 10 % during the contract period. Negotiations are needed for larger changes.

Please note that the longer the contract term, the more increases the need for flexibility of the contract. In case of high uncertainty about future developments (e.g. major changes within the coming years without any sufficient expectations on the influence on the contractual outcome), a short contract period is recommended (maybe including extension options).

Further requirements of the PSOR

While sticking to the principle of subsidiarity, competent authorities are free to establish quality standards for public service obligations, for instance with regard to minimal working conditions, passenger rights, the needs of persons with reduced mobility or environmental protection. If competent authorities require public service operators to comply with certain quality standards, PSOR Art. 4.7(a) obliges to include these standards in the tender documents and in the public service contracts. Furthermore, tender documents and public service contracts have to be transparent as to whether or not subcontracting may be considered (see PSOR Art. 4.8). According to PSOR Art. 3.2, and different to PSOR Art. 3.1, public service obligations which aim to establish maximum tariffs for all passengers or for certain categories of passengers may be the subject to general rules or public service contracts.

Where competent authorities require the selected public service operators to grant staff previously taken on to provide services the rights to which they would have been entitled if there had been a transfer within

the meaning of Directive 2001/23/EC, tender documents and public service contracts shall list the staff concerned and give transparent details of their contractual rights and the conditions under which employees are deemed linked to the services (PSOR Art. 4.7).

7.4 Control of performances

The control of performances relates to the fact that the granting of financial subsidy, exclusivity or other support by the authority to the operator usually compensates for obligations defined by the authority. A check on the realisation of these obligations is necessary (section 5.4). This check may be done via the use of more or less self-fulfilling contractual features (incentives) and/or by monitoring (classical control of services delivered).

7.4.1 Incentives

Incentives can be used to utilise the profit maximising aims of operators to achieve the policy aims of the authority instead of just writing down rules and prohibitions into the contract, as these need to be thoroughly monitored by the authority to be effective. They might be used to compensate for reduced or difficult monitoring to create self-fulfilling contractual features. They are an instrument to secure the quality level.[20]

General Remarks

The use of financial incentives can only be recommended if sufficient influence on the realisation of the related item is given to the operator. Furthermore, rationally acting operators will always weigh out the balance between the costs of meeting certain requirements and the cost of any fine or penalty which has to be paid in case of a bad performance. This particularly applies to the end of the contractual period, because the operator will see little or no return from the effort necessary to meet the requirements (especially in case that the contract is not renewed by the authority). That is why it is necessary to set the level of possible penalties or reward high enough.

Risk and responsibilities have to be allocated appropriately (see section 7.2, 7.3 and 7.5). It is recommendable, to secure an effective incentive scheme, to pre-calculate the effects of the allocated risk such as to avoid imposed incalculable risks and high costs of risk. Furthermore, it is recommended to use sanction clauses only if the authority is willing and prepared to enforce this clause in case that the respective aims or contract clauses are not met. As can be seen in the contract tables in the appendix, most of the contracts have penalty clauses for underperfor-

[20] See Bräuer, Herr, Pinz and Wille (2005, p. 15).

mance, while fewer contracts have bonus payments on selected quality criteria.[21]

Table 3 Revenue risk and incentives in some European contracts

	No additional passenger incentives	Additional passenger incentives included
Gross cost contracts	Warsaw, PL	London Bus, GB
	Krakow, PL	Stockholm, S
		Halmstad, S
		Elmshorn, D
Net cost contracts	Sundsvall, S	Grenland, N
	Trieste, I	Wittenberg, D
	Sondrio/Lombardy, I	Santiago de Compostella, E
		Haarlem, NL

From an economic point of view, many modern contracts are located somewhere on the borderline between gross cost contracts and net cost contracts. There are gross cost contracts with very strong additional passenger incentives and net cost contracts with shared distribution of additional fare box revenue, as indicated in Table 3, or, on the other hand, commercial (or even 'superincentive') net cost contracts.

Incentive schemes

Many different kinds of incentives exist, but their effect varies according to circumstances. The simple allocation of a cost or revenue risk might be insufficient in some circumstances to stimulate specific actions by the operator. An operator will, e.g., not try to attract more passengers when the cost of attracting additional passengers is higher than the additional revenue generated by these passengers (e.g. because of the need to buy a further vehicle, which cannot be fully utilised). If the authority's transport policy aims include the increase of the public transport ridership, additional incentives need, in such a case, to be offered in order to generate the desired actions of the operator.

Various possibilities exist, in addition to pure expenses and revenues, to increase contractual incentives. We can classify them into:

- **Additional incentives linked to the main cost and revenue risks**: many examples can be given, such as:
  - **Super-incentives:** linking payments to the operator to revenue realisation (e.g. €1 subsidy for each €1 of revenue collected from passengers), or to supply realisation (e.g. €x payment for each bus-km produced at peak-hour). Such incentives actually boost the incentives present in the basic contracts.

[21] Colin Buchanan and Partners (2003a, p. 16) got the same results in their study on contract practices.

- **Target-linked incentives**: linking payment of specific bonuses to the realisation of specific growth or decline target (e.g. payment of a bonus to the operator if the number of passengers increases by more than x % per year).

- **Other incentives**: numerous incentives can be devised. Examples are bonuses and penalties linked to: the realisation of specified operational quality targets (such as punctuality, cleanliness, etc); passenger satisfaction, compensation for the authority (e.g. by using a deposit), etc.

There are several net cost contracts with incentives studied in the cases reviewed. If revenue risk (net cost contract) shall be used as incentive, this might be sufficient only in the case of a high enough level of revenue contributions to cover the additional production costs. Furthermore, a high level of tactical/operational freedom is recommended in such a case. The main issue for authorities is to calibrate those incentives such as to generate the desired behaviour by the operator and avoid misleading incentives.

Grenland (N): Net cost contract with high level of freedom

The operator receives fare box revenues and additional passenger and production incentives in a tendered output-based contract. The passenger incentives are at the level of the initial fares and the operator is free to propose and adjust the service level within specific limits. The authority defined the school service level, which remains fixed during the contract period as well as the initial service level which remains the minimum level of service to provide. The authority is free to demand increased capacity if the operator, over time, is running the service with busses that are smaller than necessary. The operator must introduce a service guarantee for an optional taxi if the service is more than 30 min too late.

London (GB): Financial incentives in a gross-cost contract

London buses operate under a "Quality Incentive" contract. These were introduced in 2000, mean that operators are penalised for poor performance, and rewarded for exceeding threshold targets for on-time performance. In cases of particularly poor performance, TfL can take a contract away from an operator as a last resort. Customer satisfaction is assessed but is not used as a basis for payment of bonuses or penalties. Payments or penalties to operators are dependent on reliability of the bus services. This means for a low frequency service (less than 5 services per hour) that has as target to be 80 % on time, an achievement of reliability of 82 % will entitle the operator to an increase of the contract price by 1.5 %, 84 % reliability to 3 % and so on. In case of unreliability, i.e. more than 78 % of the services are delayed, a 1 % deduction will be undertaken from the contract price, and an unreliability rate of 76 % will lead to a 2 % reduction and so on. Operators are able to earn +15% of contract price in bonus payments and penalty payments can be 10%. Please note that the system is far more complicated than described here, but these points present the essentials of the mechanism.

Wittenberg (D): Additional passenger incentives

The tendered contract has additional differentiated passenger incentives:
- 0,90 Euro/passenger for regional passengers
- 0,40 Euro/passenger for urban passengers
- Additional 0,40 Euro/passenger after 18.00 on weekdays
- Additional 0,40 Euro/passenger on weekends

Two elements of ex-post control avoid overcompensation:
- The operator must reach an agreement with the authority before increasing fares, the authority can demand a fare reduction if it deems the level of profit for the operator to be too high.
- Payment to the operator can be reduced by 20% in case of overcompensation.

Passenger rights

Several kinds of passenger rights exist. Passenger rights are non-direct incentives, enabling the authority to implement an incentive scheme without bearing the costs of its management and control (e.g. financial compensation in case of not meeting punctuality requirements).

The authority moves part of the control (and its costs) to passengers, who get financial or other compensation when the operator does not meet specific quality requirements. These compensations might be the reimbursement of taxi costs in case of disruptions or delay of more than 30 minutes, or the refunding of the costs of dry-cleaning in case of dirty bus seats, etc. In a market with a high percentage of captive customers this instrument increases the quality of the system from a passenger point of view. Practical experiences proved that customer satisfaction rises sharply while costs are usually lower than expected.

Additional rules in deregulated markets

In the case of deregulated markets (pure market initiative by independent operators), profitable services emerge autonomously from the market process. Cost and revenue risks are by definition on the side of the operator. Nevertheless, additional incentives can be given to such operators to influence their supply of services in a sense that is in line with transport policy aims that an authority might have.

Subsidies may, e.g., be given and provide incentives to generate the provision of additional services. Examples of such payments are compensations of fare rebates for specific target groups, compensations of fuel duties in specific areas, etc. By these means the authority may also achieve some redistribution of wealth between different groups of the population. Such interventions influence the action of operators on the free market without foreclosing competitive threat and autonomous innovation which are the principles of such a design.

Leeds (GB): Quality partnership within free market

The 'quality partnerships' between operators and authorities, as applied in Great-Britain, is an example of such an organizational form. The Leeds guided busways is an example where high quality infrastructure and vehicles have been maintained since 1995.

The local PTE, Metro, identified a requirement to upgrade the bus services on Scott Hall Road, York Road and Selby Road. The highway authority for the three corridors (Leeds City Council) and Metro formulated an agreement with the bus companies on the corridors, FirstLeeds and Arriva. This was a voluntary agreement under free market principles, which is not legally enforceable. The common principle of this agreement is the recognition that under a commercial, deregulated regime, the objectives of the bus operator and those of the local authority can be met most effectively if they work in partnership with a common set of objectives.

Quality Partnership can meet objectives which authorities have set out in Local Transport Plans (LTPs). LTPs are submitted to and funded by the Department for Transport. Although bus operators and local authorities have some common objectives, the overlap is only partial, which can be a source of contention when authority and bus operator objectives are in conflict (e.g. commercial objectives vs. accessibility objectives), or where a number of operators provide services on a corridor, making it difficult to formulate an agreement to the satisfaction of all parties.

Generally, under a quality partnership an agreement is made to secure investment by both parties for mutual benefit (new buses by operator / infrastructure – bus priorities and shelters by the authority). They tend to be route specific but could potentially cover a whole network.

Metro and Leeds City Council provided capital funding, through a series of major schemes funding bids to the Department for Transport. This capital paid for guideways constructed along the three radial routes. In total, around 10KM of guideway was provided. The bus operators agreed to provide new buses equipped with guide wheels to allow buses to use new guideways.

The Terms of the partnership agreement are generally not enforceable - political changes may affect implementation of infrastructure measures and changes in competition may affect commitment of bus operators to provide high quality vehicles or consistent standards. However, in the case of the Leeds guided busways, high quality infrastructure and vehicles have been maintained over the life of the scheme to date (1995-present).

A key element in any partnership is trust between parties, but it is clear that there are varying levels of commitment, which is creating pressure for more formal, contractual agreements in some areas.

Exclusive access to enhanced facilities is not permitted under competition rules, creating potential for "free riders". However, in the case of guided bus ways, the infrastructure can only be used by buses equipped with guide wheels, which effectively restricts it to modern vehicles.

However, it is important to remember that an increase in requirements/obligations in deregulated markets will result in fewer services being profitable and thus fewer services appearing 'automatically' as a result of the market process. Such requirements/obligations do not, however, influence competition in itself as long as they are equally valid for all incumbents and entrants. Note also that additional, non-profitable services can be bought upon contract by the authority and can be awarded in a competitive process to (other) operators. The transport and social policy aims, within the available budget, define the extent to which such additional services can be ordered.

Requirements of the PSOR

The opportunity to realise profits is the main incentive for operators to act in a market. As already explained, incentives optimally have to be designed in such a way that the profit maximizing aims of operators are in accordance with the policy aims of the authority. Therefore, incentives enhancing the possibility to make profits are optimal (and necessary). Even if contract are awarded directly to operators according to PSOR Art. 5.2, 5.4, 5.5 und 5.6, a reasonable profit must be calculated for the operator according to the annex of the PSOR (2 and 6).

A reasonable profit has to be taken as mean of a rate of return on capital that is normal for the sector in a given Member State and that takes account of the risk, or absence of risk, incurred by the public service operator. Furthermore, according to the annex of the PSOR (7), the method of compensation must promote the maintenance or development of effective management by the public service operator, which can be the subject to an objective assessment, and the provision of passenger transport services of a sufficiently high standard.

7.4.2 Monitoring and supervision

Monitoring, controlling and supervision of the service delivered by the operator might be an alternative or a complement to the incentive instruments already selected. During the contract period the authority will have to verify, whether the operator respects the conditions of the contract he has agreed upon.

General remarks

There is a need to gather data. In case the operator does not fulfill the obligations of the contract it will be necessary to proof where and to what extent the service agreed upon was delivered or not. It is recommended that authorities collect at least the most essential information from independent sources. Alternatively, they will have to monitor the supply of information by the operator and, if necessary, force the operator to provide the requested information.

Please note that the authority needs to be competent enough to interpret the relevant data. These proceedings determine the availability of data in case that it is needed. As some of the gathered data form the basis for incentive payments, the operator has an interest in verifiable figures, too.

Several instruments could be used:

- Self controlling instruments
  - Transparency (e.g. by publishing main quality figures like punctuality in the internet)
  - Passenger rights as an economical incentive (see chapter 7.4.1 above)
- Supervising of performance
  - Monitoring gathered data
  - Controlling specific data autonomously through the authority (when required)
  - Monitoring via auditing as well as accounting and disclosure

Please note that the PSOR (Art. 7) foresees the delivery of an "authority report" by the operator and the obligation for authorities to communicate on railway contracts.

Recommendations

To make sure that the information gathered by the authority is available when it is needed, it is also recommended to secure the data quality. The following recommendations can be made:

- The ability to take measurements and the possible measures which can be taken should be set out in the contract
- The measurements must be transparent and verifiable for both parties (do not use requirements that cannot be clearly verified)
  - Each performance target needs to be clear and measurable
  - Select measurable indicators for the qualitative and quantitative performance which can be observed independently
  - Check the usefulness of selected measures by comparing them to historic figures, if possible, and by comparison with other areas

London (GB): Financial incentives in a gross cost contract

Monitoring for gross cost contract for buses is done by TfL as follows:

- The "Quality Incentive" contract payments are based on a monitoring regime that primarily measures the reliability of the buses. The contract dedicates a whole section to reliability. It states for example at which location and what frequency monitoring will take place.
- In addition, Customer Satisfaction Surveys are carried out, measuring waiting time & riding, driving standard, cleanliness, information at bus stops, etc.
- Other monitoring mechanisms include: Mystery Travellers, driving standards reporting, accident & incident reporting, environmental reporting etc.
- Operator league tables are published for reliability and excess wait time. Other quality indicators are reported at network level only.
- Presently monitoring is undertaken manually, with a hand held device. However, TfL is in the process of introducing GPS in the future. This tracking system would have additional benefits, such as passenger information.

Furthermore it is important to recognize that especially the supervision of the performance can be reduced to a certain extent if it is possible to use

incentives. In case of commercial or superincentive contracts, the authority might only control a few selected minimal standards.

It is recommended to select the instruments carefully whether the delivery of the specific data from the operator is needed or not. Otherwise, the costs for the operator and the authority of providing statistics may rise excessively. Nevertheless, these instruments are necessary to check, whether the agreed performance targets of the contract have been met and are proof of good stewardship by the authority.

Enforcement

The contract allows a precise definition of the responsibilities and rights of all parties to the contractual relationship, providing transparency of parties' duties, especially with respect to financial terms. Once the division of tasks has been established, it is necessary to make sure that the operator and the authority are fulfilling their tasks, as defined in the contract, in a proper manner. Authorities often fail to enforce the contract. Operators, especially if they are profit oriented, will always make sure that they will be paid properly for their services.

Amsterdam (NL): Direct award with competitive threat

The authority awarded a net-cost contract for the management of the urban public transport network of Amsterdam directly to the municipal operator. The contract was awarded for the period 2006-2011 in direct award with a threat of a competitive tendering procedure if the existing municipal operator was not able to deliver a bid under market conformity.

Monitoring controls the operation of the agreed number of timetable-hours per route, punctuality, the number of realised planned connections, the occupancy rate and passenger satisfaction. A bonus/penalty system is in place, too.

It is important, that the authority is willing to identify insufficient performance in case it occurs, even if this results in the application of available sanctions. Although this might be politically sensitive, it is needed to secure credibility of the authority and effectiveness of the provisions of the contract.[22] Where performance indicators are not met, the authority must be able to:

- Impose fines
- Withhold part of the subsidy
- Arrange for compensation
- Deny extension/renewal option

[22] Sometimes it might be helpful to remember that bonus-payments for good performances and fines for bad performance are usual in service contracting within economical life in other industries.

Please note that if the authority is not prepared to use sanctions in case of poor workmanship, then their implementation into the contract serves no purpose. In other words, to be effective, threats and penalties in the contract should be effectively enforced.

Requirements of the PSOR

A public service contract, drafted in a clear manner, may help authorities to report on their public transport services to committees, councils and the public. According to PSOR Art. 7.1, each competent authority shall publish once a year an aggregated report on the public service obligations that it is responsible for, the selected public service operators, the compensation payments and the exclusive rights granted to the public service operators by means of reimbursement. This report is supposed to permit the monitoring and assessment of the performance, quality and financing of the public transport network.

7.5 Final contracting recommendations

As already explained, the risk level is a very important feature that strongly affects the possibilities of the authority in the action of drafting a public service contract for public transport. Based on the explanations provided in section 7.2, the following chapters give further recommendations with special attention on how to allocate risk properly. The first section provides general recommendations on risk. Subsequent sections then give special recommendations on remaining contract dimensions: contract size, contract length and contract payment.

7.5.1 Recommendations on how to allocate risk

Assess the risk level and check position of the authority and the operator

To be able to decide upon the risk level to be borne by the operator the risk of the drafted contract has to be assessed based on the general distinctions of section 7.2. Furthermore, it is recommended to check the position of the authority and the operator with respect to the:

- Ability to bear risk by the authority
- Willingness to bear risk by the authority
- Ability to bear risk by the operator
  - Small and medium sized companies are often not in a position to bear high levels of risk
  - Global players are usually able to bear higher risk levels (but not unlimited)
  - Public companies are usually able to bear higher risk levels (but not unlimited) and this can turn out to be of very limited effect if the authority transferring the risk to the company is also the owner of that same company.

Make clear description of tasks and responsibilities with special consideration to aspects related to risk

It is important, that parties understand their position of risk induced by the contract to be able to decide whether to sign the contract (and agree with the immanent risk level) or not. The role of the contract in this matter is to reduce the risk to the operator, may he be private or internal, and to reduce the costs of risk.

Avoid incalculable risk and use risk sharing

The easiest way to avoid an incalculable risk to the operator (and reduce the risk premium to be paid by the authority) might be the selection of a management contract (without incentives), where the production as well as the revenue risks are borne by the authority. Nevertheless, it might be useful to select either a gross cost or a net cost contract, to take full advantage of the optimising efforts of the operator. Therefore, the question might be how risk can be avoided or reduced to be able to select a gross cost or even a net cost contract. Two main recommendations can be made:

Allocate the risk to the appropriate contractor:

- According to the roles and the responsibilities of each contractor as laid down in the contract: the operator should only bear the risk of the performance on a specific feature if he is able to influence the outcome of that feature.
- According to the ability to bear risk:
  - By the operator
  - By the authority (which is normally able to bear more risk than the operator)
- Avoid high risk levels for the operator, especially when there is no control on the respective feature by the operator (e.g. through price adjustment clauses):
  - Such as increases in energy prices, infrastructure tolls (and sometimes staff costs) (production risk)
  - Such as natural disaster
  - Such as building a competing motorway to an existing railway line (revenue risk)
- Use sharing of fare revenue between operator and authority in case of high uncertainty to reduce revenue risk

Reduce (high) uncertainty, so that bidders are able to calculate based on verified figures. Some helpful tasks might be:

- Provide passenger data and fare revenue data to the operator (otherwise a net cost contract cannot be recommended)
- Determine network with low dependence on the performance of other operators (also important for net cost contracts)
- Give guarantees on minimum standards of infrastructure (e.g. minimum speed on roads).

In many of the existing contracts, an indexation clause is used to move the production risk, caused by the external input factors (see above) to

the authority. However, a threshold in this clause could be defined to ensure the cost minimizing efforts of the operator.

Halmstad (S): Tendered incentivised network contracts

The authority awarded a gross cost contract for the operation of the urban network of Halmstad for the period 2002-2010 in a competitive procedure to the operator Swebus. Swebus carries the risk on all operational costs, including personnel, energy and maintenance. The operator also bears the investment risks, excluding the investment risk for bus stops.

This contract is a gross cost contract with revenue incentives and a shared production risk. To reduce the production cost risk borne by the operator that risk was shared between the authority and Swebus. The payment received by the operator is corrected according to a price index on an annual basis, based on price-, wage- and fuel rate, which means that the development risk lies with the authority. The rest of the production cost risk remains at the operator.

Note that the risk that is taken by the operator depends substantially on actions falling under the sphere of responsibility of the authority. Authority decisions pertaining to parking policy, road pricing, traffic management, land-use development, even the development of competitive transport services (taxi policy, parallel services, etc.) may substantially influence the profitability of existing contracts. Such actions may generate a need for contract renegotiation. To clarify how to renegotiate, it is recommended to include a sufficient level of flexibility in the contract (see section 7.3). Furthermore, please note that public transport service by rail raises specific issues on the risk of investment burden and infrastructure cost.

Distribute Competences according to the aims of the authority and risk

The responsibilities and tasks of the contractors have to be distributed according to the policy aims of the authority. Whatever the situation, a fair and successful contract recognises the shares of risks and distributes the competences amongst the contracting parties according this risk. The role (and the level of freedom) of the operator should be proportional to the level of risk he takes. Some examples are:

- Management contract (no revenue and no production risk): The (manager of the) operator just requires limited freedom.
- Gross cost contract (production risk): A medium level of freedom is recommended, concentrated on the determination of the operational process. It is likely that innovations will be encouraged within the production process.
- Net cost contract (revenue and production risk): Within a classic net cost contract, a high level of freedom for the operator is recommended, including the ability to influence the design of the services to a wide extent to be able to increase patronage. This may encourage innovations within the production as well as within the products delivered. The use of commercial or even a superincentive contracts is recommended only if the operator is allowed to organise the public transport services it provides according to its own agenda (within

contractual limits). This may result in a lower direct influence for the authority on public transport.

7.5.2 Contract size

General remarks

Public transport contracts vary in size. Depending on the local legal regime and the choices made by (local) authorities on the way to organise public transport, one can distinguish between network contracts, sub-network contracts and route contracts:

- Network contracts cover a whole public transport network, such as a whole urban area, including several transport modalities such as bus, tram and metro.
- Sub-network contracts cover parts of an urban area, and usually cover only one mode of transport, such as the metro network, or a bus network in one of the suburbs of a city.
- Route contracts are based upon specific (bus) routes, but may include several smaller bus routes located close to each other.

The contract size (size of batch/package) has an influence on efficiency. Related to matters of risk, this aspect mainly affects the market entry possibilities and might result in an overly elevated complexity level for the respective operators as already described in sections 7.2 and 7.5.1. Furthermore, the contract size is related to the applicability of several awarding procedures as explained in chapter 0.

Recommendations

To select an appropriate contract size, appropriate to the local needs and the risk level accepted by the contracting parties, the following recommendations can be given:

Network contracts

- Provide substantial optimising opportunities to the operator and therefore may increase efficiency levels
- Provide integrated public transport services delivered by one operator to passengers
- Enable net cost contracts
- Account for a great operational complexity
- Might be more difficult to monitor
- Increase the need to select long term contracts
- Produce market entry barriers for small and medium sized companies

Route contracts

- Provide fewer optimising opportunities
- In case of dependency on the performance of other operators net cost contracts are not recommended
- Integration of public transport services needs to be realised through other organisations (authority or related body)
- Low market or no market entry barriers exist for small and medium sized operators

Sub-network contracts provide a compromise between network contracts and route contracts if required.

Munich suburbs (D) and London (GB): Gross cost route contracts

Competitive tendering for gross cost bus route contracts takes place in eight suburban districts of the greater metropolitan area of Munich. The contract period is usually 6 to 7 years. These are mainly for regional bus routes and feeder buses for light rail. The suburban districts try to realise competition in their area with a sense of proportion. The aim is to secure chances for small and medium sized bus operators, and they were able to increase the number of these operators.

London also tenders gross cost bus route contracts, but supporting small and medium sized operators is not an aim of high importance to them.

Amsterdam (NL): Net-cost contract for urban public transport network

The net-cost contract for the management of the urban public transport network of Amsterdam was awarded for the whole area directly to the municipal operator. The assets (vehicles, installations, including bus, tram and metro infrastructures) are currently owned by the public operator.

Warsaw (PL): Tendering of route bundle contracts

Competitive tendering of a share of the bus services in the Warsaw urban area with a gross cost contract for a period of 10 years. The authority defines the characteristics of the buses before tendering. Vehicles should be new, 18 meter long, low-entry buses. Within the latest tendering 50 new buses should start to operate in 5 phases, 10 buses every month. The whole production amount is reached in the 5th month after starting operations.

7.5.3 Contract length

General remarks

The length of contractual relationships in passenger transport varies from short (e.g. 1 year) to long (e.g. 30 years or more). Usually this is related to the amortisation period of the investment (in vehicles and/or infrastructures) made by the transport operator under contract to reduce the investment risk.

Other considerations may influence the choice of a specific contract length too, such as the extent to which the operator has service design freedom and is submitted to revenue risk. A longer contractual period may be needed to allow the operator to develop market actions that will influence ridership. The specific local legal context may require specific contract lengths. Other requirements, which can be related to political cycles (election periods, transport policy planning periods, etc.) may determine preferred contract lengths at the local level, too.

In Europe, contracts for the provision of public transport services often have a duration of (roughly) 4 to 10 years for those contracts requiring no investments from the operators or only investments in vehicles that have a relatively short amortisation period or are easier to trade (such as busses). Contracts requiring substantial investments from transport operators, especially in rail-based systems (trams, metros and trains) tend to have a longer duration and or even a much longer duration if assets with a long amortisation period (such as tunnel infrastructures, rail vehicles, etc.) are included in the contract into longer-term concession-like systems. Such contracts vary roughly from 15 to (often) 30 years or more.

Krakow (PL): Gross cost contract for bus and tram

The city of Krakow awarded a gross cost contract to the internal operator MPK with two different contract durations with respect to the specificity of those services: bus (8 years contract duration) and tram (14 years contract duration) services.

Dijon (F): Management contract for the urban bus network

Dijon awarded its management contract for the urban bus network of the Dijon agglomeration via tendering. The assets (vehicles and installations) are provided by the authority. The contract foresees the production of about 10 million bus-km/year for the five-year period 2003-2008. The contract was awarded in a competitive procedure, including negotiation. The operator is submitted to the production cost risk and revenue risk, with various financial incentives.

Porto (P): Concession contract to build, finance and operate a new metro line

The Concession contract for the design, building, financing and operations of a new metro line of Porto was competitively awarded as gross cost contract. The concession gives the exclusivity of metro operation (in public service regime) to “Metro do Porto”, SA for 50 years, that could be renewed for two successive periods of 10 years.

Recommendations

Generally, the contract duration for public transport services in Europe vary considerably. What can be concluded is that contract periods often vary according to the characteristics of the amortization periods of the investment needed.

The following recommendations can be given: [23]

- Use short term contracts in case of need for increased flexibility
- Use short term contracts in case of high uncertainty about future development (e.g. net cost contract with high uncertainty about development of the ridership)
- Use long term contracts in case of high specific investment needs with long amortization periods, including review dates on the performance
- Use longer term contract when substantial market action is required from the operator (take account of longer lead times to develop measures and to reap the profit of their implementation)
- Avoid too long contract periods to be able to recalibrate contract clauses according to market development
- Avoid too long contract periods in case of competitive awarding to secure competition within the market
- Avoid too short contract periods as this causes increasing uncertainty (which may result in lower interest of operators on that contract)
- Decide upon trade-off between flexibility (short-term contract) and increasing incentive to make capital investments (long-term contract)
- Give notice to legal requirements and the specific local context

Requirements of the PSOR

According to PSOR Art. 4.5, the duration of contracts shall be limited and shall not exceed ten years for coach and bus services and fifteen years for passenger transport services by rail or other track-based modes. The duration of public service contracts related to several modes of transport shall be limited to fifteen years if transport by rail or other track-based modes represents more than 50 % of the value of the services in question. The duration of the contract may be extended under specific circumstances according to PSOR Art. 4.6.

In the event of a disruption of services or the immediate risk of such a situation, the competent authority may take an emergency measure. The award or extension of a contract by emergency measure or the imposition of such a contract shall not exceed two years (see PSOR Art. 5.5).

According to PSOR Art. 5.6, competent authorities may decide to award public service contracts directly if they concern transport by rail, with the exception of other track-based modes such as metro or tramways. In derogation to PSOR Art. 4.5, such contracts shall not exceed 10 years, except where PSOR Art. 4.6, applies.

[23] See also Atkins (2005, p. 20) for special recommendations on tendered bus services.

7.5.4 Contract payment

The simplest way to exercise influence on local public transport is to attach conditions to the granting of operational subsidies to the operator. The authority has to evaluate carefully the pros and cons of the financial model to be chosen and to determine the financial contributions of the parties to cover the production costs. The adopted financing model will determine the incentives for the operator and thereby exert influence on its actions.

General remarks on payment structures

In general, there are two primary sources for financing the production costs: revenues (fare income and commercial income, e.g. from advertising) and grants or subsidies

Depending on the specific elements of the contracts considered, payments will be made between the transport authority and the transport operator. We can distinguish between lump-sum payments and variable payments:

- Lump-sum payments (or the way to calculate them) are contractually determined before service realization.
- Variable payments depend on the incentive structures included in the contract and vary according to a pre-established formula, with the realization of specific targets specified in the contract. They e.g. may depend on fare reduction and incentives.

Recommendations

Payments to operators could be fixed, variable or a combination of both. Authorities should determine a clear and verifiable payment structure to avoid disputes during the contract period. Please note that it is recommended to separate financing of infrastructure from financing of operations for transparency reasons.

In each case, payments can in principle flow from the authority to the operator, or from the operator to the authority. This depends on the market situation. Awarding a very profitable commercial route to an operator by competitive tendering may result in a payment from the operator to the authority. It is however more usual to see payments flowing from the authority to the operator as many public transport services are not commercially profitable. But this also depends on the structure of the additional incentives included in the contract.

The way to determine the amounts to be paid depends on numerous factors. These will, to a large extent, be determined by the way the contract is awarded to the operator (see the section on the award procedure).

It is recommended to include a lump sum payment structure in case of the need to reduce the risk level. Variable payment structures provide a more incentive-based payment structure and may enhance the efforts of the operator according to the aims of the authority.

Furthermore, it is recommended to determine the payment structure in a clear manner and reduce complexity as far as possible in favor of simple payment structures. This may avoid misunderstandings. It also reduces the risk level and therefore avoids high market entry barriers.

Requirements of the PSOR

A clearly determined payment structure, fixed and transparent before awarding is a requirement according to the Altmark Judgment (see section 7.2) and the PSOR. According to PSOR Art. 4.2, 4.3 and 4.4, public service contracts and general rules must establish in advance, in an objective and transparent manner. The parameters of compensation payments must be calculated in a way that prevents overcompensation. The arrangements for the allocation of costs connected with the provision of services and the arrangements for the allocation of revenue from the sale of tickets shall be determined by public service contracts and general rules.

In the case of public service contracts awarded in accordance with PSOR, Art. 5(2), (4), (5) and (6), these parameters shall be determined in such a way that no compensation payment may exceed the amount required to cover the net financial effect on costs and revenues incurred in discharging the public service obligations, taking account of revenue relating thereto kept by the public service operator and a reasonable profit.

According to PSOR Art. 6.1, all compensation connected with a general rule or a public service contract must conform to the provisions laid down in PSOR Art. 4, irrespective of how the contract was awarded. All compensation, of whatever nature, connected with a contract awarded directly in accordance with PSOR Art. 5.2, 5.4, 5.5 or 5.6 or connected with a general rule must also conform to the provisions laid down in the annex of the PSOR.

Please note that according to PSOR Art. 6.2, in reply to the written request of the Commission, Member States shall communicate, within a period of three months or any longer period as may be indicated in that request, all the information that the Commission considers necessary to determine whether the compensation granted is compatible with the PSOR. Authorities therefore have to pay particular attention to the ability to proof that their payment structure is in accordance with the PSOR within short periods.

8 Awarding Contracts

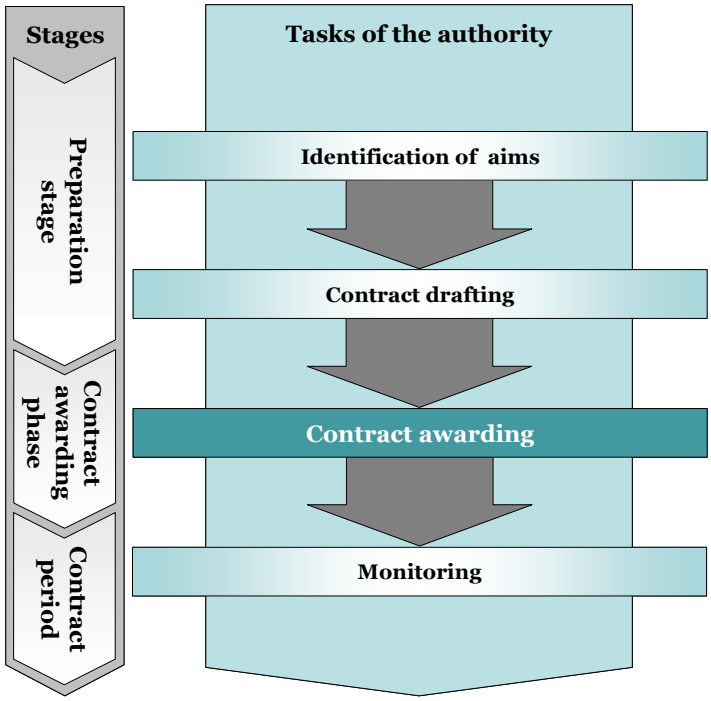


Figure 21 Contract drafting

The awarding procedure can be regarded from two perspectives: law and practice. We will provide a brief background on the legal perspective. However, as this guidebook shall serve in the first place as a more practical, rather then theoretical support, emphasis is placed upon practice. In the section devoted to practice an analysis of the case material, made available within the framework of this study, is presented. We stress the fact that this cannot represent a complete picture of the award practice in Europe, although we consider it to give a good first impression of the variety of solutions in use all over Europe. Finally, guidelines for authorities regarding the award procedure are presented in the final paragraph.

The schedule of awarding contracts (see section 5.5) has identified four tasks of the authority, repeated on the left side. The explanations in this chapter will concentrate on contract awarding. The final task, monitoring of contract (and evaluation), concerns in fact both the contract as well as the awarding procedure and is determined by the decisions within the task of drafting the contract and the contract awarding phase.

In case of competitive tendering the task of contract awarding usually consists of three main steps (see Figure 22). Related steps will also have to be taken in case of direct awarding, although there will be no need for publication of the invitation to tender and the selection and awarding in this case. We recommend following these awarding steps within every awarding procedure.

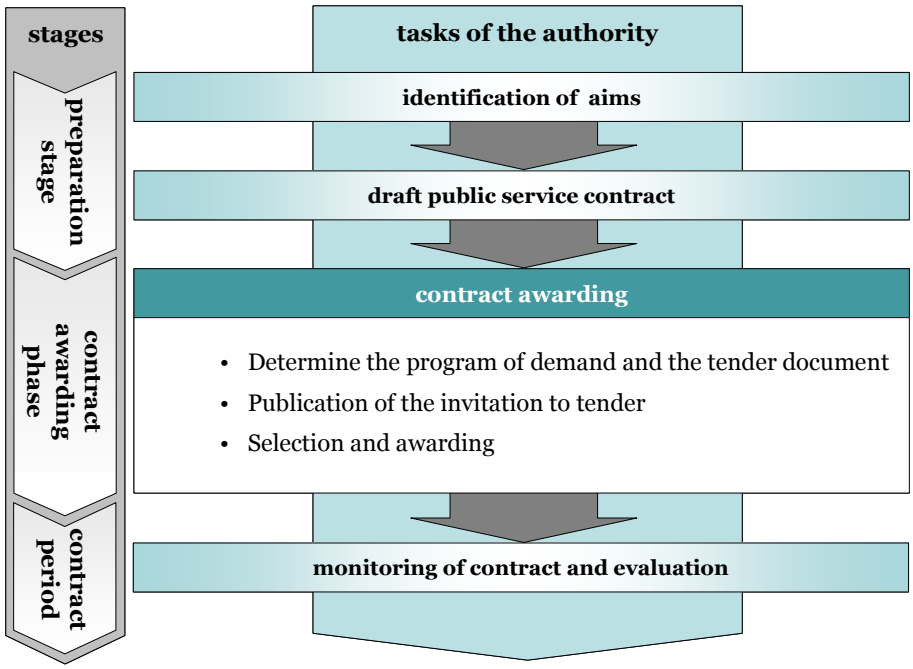


Figure 22: Awarding steps

8.1 Introduction on the legal framework

The relevant legal framework for the award of public transport contracts consists of:

- EU secondary legislation: The Public Service Obligations Regulation applicable to public transport (Regulation 1370/2007/EC on public passenger transport services by rail and by road, repealing Regulations 1191/69/EEC and 1107/70/EEC).
- EU secondary legislation: Public procurement directives
- EU primary law: Treaty principles
- National (regional/local) rules for the award of public transport contracts (if adopted)
- Existing European and national jurisprudence with regard to in-house-awards and concessions
- Commission interpretative communication on the community law applicable to contract awards not or not fully subject to the provisions of the public procurement directives (2006/C 179/02)

It is not easy to navigate through this rather complex legal framework. But things will improve once the PSOR enters into force (24 months after its publication expected in November 2007). This Regulation will only establish a framework, although a rather detailed one (see following chapter). There will be room left for national legislation to determine further rules applicable to public service contracts and these national rules might differ among Member States.

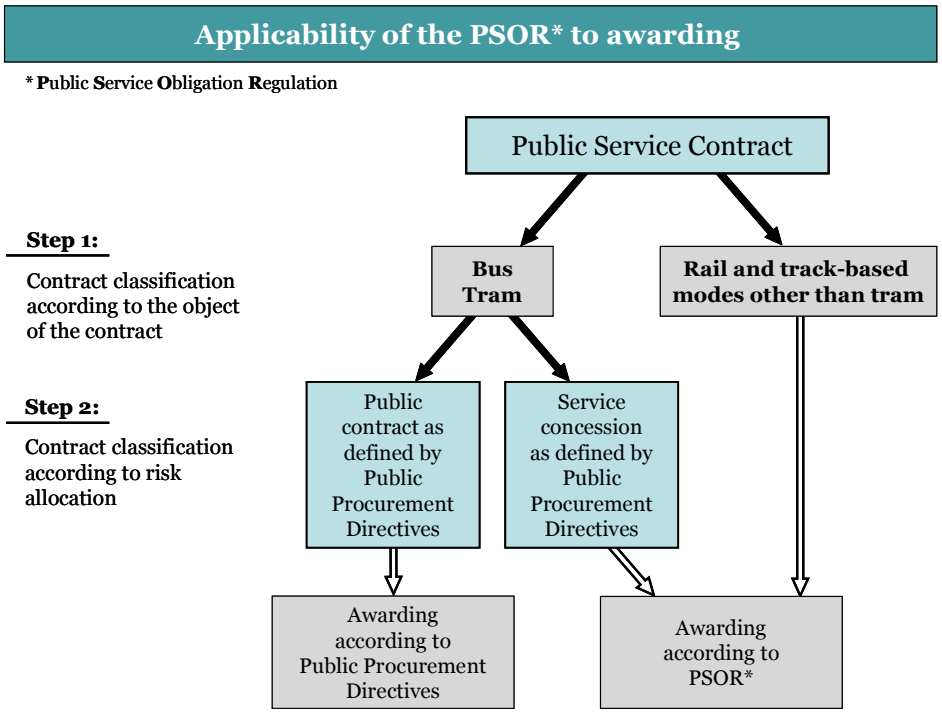
The following text can only show the basic direction towards the right track. However, any Awarding procedure requires specific legal advice in

order to prevent mistakes and endless legal discussions after the awarding.

8.1.1 The Public Service Obligation Regulation

The legal basis of this "regulation of the European Parliament and of the council on public passenger transport services by rail and road" is formed by the Treaty provisions on common transport policy and competition. The aim is to enhance the efficiency and attractiveness of public transport. It is meant to clarify the situation by giving a comprehensive answer to the questions connected with public service contracts for the first time.

The basic approach is that, because of its very wide concept of contract, the PSOR will be applicable to all forms of contracts currently used in different member states, as long as they deal with public passenger transport services by rail, other track based modes or road. Concerning the PSOR provisions on contract awarding (PSOR Art. 5) the new rule of thumb will be that the awarding procedure follows the provisions of the PSOR unless the contract in question already falls under the regime of the Public Procurement Directives.



Note: work concessions are not covered by the PSOR

Figure 23: Applicability of the PSOR to awarding

Under this regime the process of identification of an appropriate awarding procedure will still be complex because of:

- The different definitions of concessions and agreements applied at national level in Europe

- The gradual scale of risk division applied in contracts / concessions (less risks make it more likely that Public Procurement Directives must be applied)
- The existence of mixed contracts

Nonetheless, the distinction between the applicability of the Regulation and the Public Procurement Directives is important, since the latter includes far more detailed procedural requirements, especially with regard to the competitive tendering procedures.

National procedures

In some Member States (e.g. UK, Netherlands) 'regular' procurement rules based on the Public Procurement Directives are applied when awarding public transport contracts also in cases in which doing so is not mandatory. Under such circumstances the distinction between the directives and the regulation is less relevant, at least as far as it concerns the awarding procedures.

The PSOR only includes very basic, though important, rules for competitive tendering (article 5.3 PSOR) and leaves much more room when it comes to the details of a competitive tendering process: "The procedure adopted for competitive tendering shall be open to all operators, shall be fair and shall observe the principles of transparency and non-discrimination." Hence all kind of national/regional/local award procedures will be possible as long as the above principles are observed.

8.1.2 Public Procurement Directives

The aim of the Public Procurement Directives is to ensure the awarding of public services in a transparent manner and without discrimination in order to safeguard the free movement of services. European directives for public procurement of services have been in force for approximately 15 years.

But there is no consent among member states on their applicability to the contracts we have characterised and analysed above. Basically, contracts dealing with public passenger transport by bus or tram fall under the regime of the Public Procurement Directives, when they are not a service concession. A concession, as defined by the Public Procurement Directives, being a contract where the consideration for the provision of services consists either solely in the right to exploit the service or in this right together with payment. A concession therefore hands a part of the revenue risk to the operator of the service and it can be argued that this is the case with many of the contracts described above.

It is important to keep in mind that the EU rules regarding public procurement represent a very elaborated set of rules governing all aspects of the award procedure. Usually these directives have been implemented in national legislation that may include even more details about the specific forms of award in specific circumstances. Public procurement processes have also led to a vast amount of European and national jurisprudence.

A substantial part of this jurisprudence deals with the question under what kind of circumstances the public procurement directives do not apply. The ECJ has ruled that not only concessions are exempted but also contracts with a so called 'internal operator'. The internal operator being a legally distinct person over whom the authority exercises a form of control similar to that exercised over its own departments and who, at the same time, carries out the essential part of its activities together with the local controlling authority or authorities (ruling C-197/98, "Teckal").

8.1.3 Applicability of General Treaty Principles to concessions

The discussion has lately become somewhat more complicated because of the fact that the ECJ has ruled that even if the public procurement directives do not apply, e.g. in the case of a concession, the general principles of the treaty, especially the one of non-discrimination, do (ruling C-324/98 "Teleaustria"). That's why non-discrimination, proportionality, transparency, and equal treatment always have to be the core elements of any (competitive) award procedure. According to its article 5.3 the just mentioned basic treaty principles have to form the basis of any (competitive) PSOR awarding procedure.

8.2 Awarding procedures

The awarding process takes place within a rather complex legal framework. All the legal aspects that were just mentioned have to be considered when choosing the correct awarding procedure. That is where the proposed PSOR comes in. It brings together all the different legal developments of the recent years and combines them into a comprehensive picture.

It can perform this task because of its very wide concept of contract, as was already mentioned. A public service contract is defined by the PSOR as "one or more legally binding act confirming the agreement between a competent authority and a public service operator to entrust to that public service operator the management and operation of services subject to public service obligation". One can easily see that this definition is intended to cover every form of agreement currently in use in the European Union in the field of public transport.

What is more, the formation of a contract when dealing with public transport matters will be mandatory under the PSOR (article 3.1). Thus it provides a regime that applies to all forms of public service obligation contracts in the field of public transport and that at the same time requires all the players to operate within a contractual framework. That way you will have a comprehensive set of rules applicable to everyone for the first time.

Only the public works concessions and contracts remain outside the scope of the PSOR (article 1.3)

Thus the first, most basic and most important finding is: The provisions of the PSOR always apply, except for those on awarding.

Only with regard to the awarding procedure an exception from the rule of constant PSOR-applicability is possible that exception being that you have to award according to the Public Procurement Directives. Article 5.1 of the PSOR forms the framework for this exception.

As was already mentioned above in section 8.1.1 contracts dealing with the provision of public passenger transport services by bus or tram fall under the regime of the Public Procurement Directives unless they qualify as concessions. This 'concession' quality depends primarily on the level of risk transferred to the operator by the contract.

Below a simplified overview of this system is presented. Of course, the legal nuance/debate – especially the interpretation of "risk" – cannot be caught in this graph.

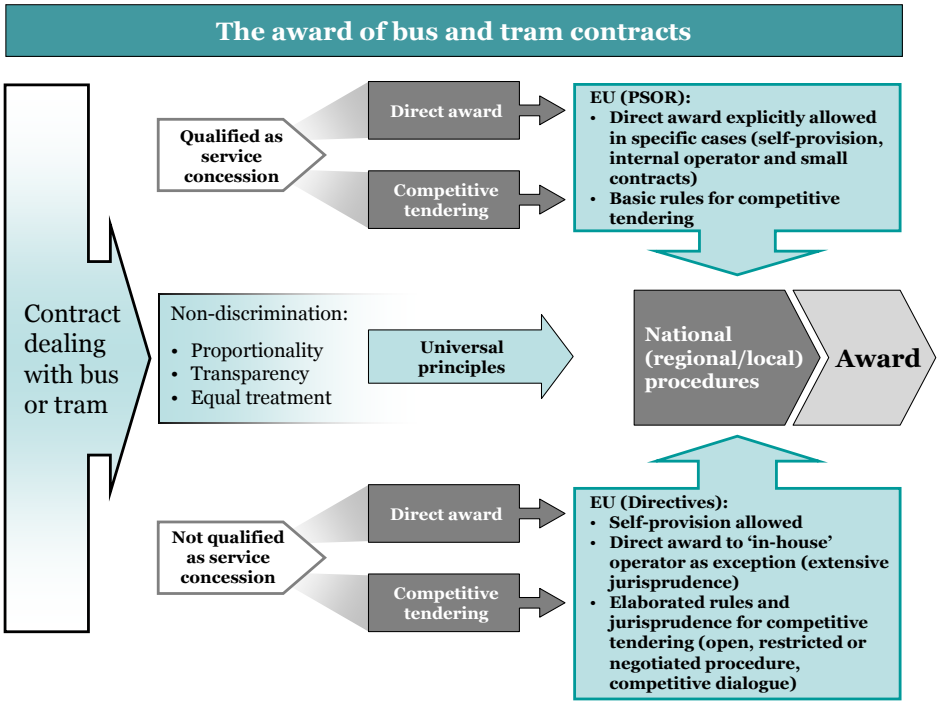


Figure 24: Method to award bus and tram contracts

In case a contract dealing with bus or tram does not qualify as a service concession, you have to award it in accordance with the Public Procurement Directives. The award procedures available under that regime are not the primary subject of this text. But basically one can say that, except for quite exceptional cases, the Public Procurement Directives always require that contracts whose value equal or pass the thresholds provided for are awarded following publication of a notice calling for competition in the Official Journal. There is always a free choice between an open procedure, in which all interested parties can present a tender and a restricted procedure in which only those who, following a request to participate, have been invited to do so may tender. Public authorities may

use procedures involving negotiation, such as the negotiated procedure with prior publication or the competitive dialogue, under the particular circumstances that are exhaustively listed in the Directives[24]. Under exceptional circumstances, such as extreme urgency due to natural catastrophes, contracts may be awarded without any form of call for competition in the Official Journal. The cases in which use of such exceptional procedures is possible are exhaustively listed in the Directives and the ECJ and the national courts are restrictive in applying them since they are exceptions from the fundamental freedoms of the Internal Market guaranteed under the Treaty.

In case of a contract dealing with bus or tram that does qualify as a service concession, because of the level of risk transferred to the operator you stay within the realm of the PSOR.

In case of a contract dealing with a form of public transport other than by bus or tram, e.g. transport by rail, you will always stay within the scope of the PSOR.

Once you are under the roof of the PSOR, several different awarding procedures are available:

- You can always decide to conduct a competitive tendering (article 5.3).
- Contract directly awarded and without tendering to an internal operator (article 5.2)
- Contracts staying beneath certain thresholds may directly be awarded as a measure of support for small and medium sized companies (article 5.4)
- In the event of an emergency a direct award can take place for up to 2 years (article 5.5)
- Contracts concerning transport by rail can always be directly awarded, with the exceptions of other track-based modes such as metro or tramways (article 5.6).

Direct award to internal operator (article 5.2)

Unless prohibited by national law, the direct award to an internal operator is allowed under certain circumstances. This possibility of a direct award provided for by the PSOR in respect of contracts falling within its scope is modeled on the two criteria developed by the ECJ in the 'Teckal'-case, while providing explicitly some flexibility in their interpretation.

A competent local authority - irrespective whether it is an individual authority or a group of authorities providing integrated public passenger transport services - may decide to provide public passenger transport services itself or to award public service contracts directly to a legal entity over which the competent local authority - or in case of a group of

[24] Contracts may, however, always be awarded under a negotiated procedure with a call for competition where the applicable Directive is the Utilities Directive, 2004/17/EC.

authorities at least one competent local authority - exercises control similar to that exercised over its own departments.

For the purpose of determining whether the competent local authority exercises such control, factors such as the degree of representation on administrative, management or supervisory bodies, specifications relating thereto in the articles of association, ownership, effective influences and control over strategic decisions and individual management decisions shall be taken into consideration (article 5.2 lit. (a)).

As a basic rule one can say: the less freedom of movement there is for the possible internal operator, the better. National company law may put some restrictions on the degree to which a company can be stripped of its independent decision making possibilities.

Provided that there is a dominant public influence and that control can be established on the basis of other criteria, 100% ownership of the internal operator by the competent public authority (in the sense recently asked for by the ECJ under the specific circumstances of the Parking Brixen jurisprudence) is not required.

The second element of the 'Teckal'-jurisprudence, the carrying out of the essential part of its activities together with the controlling local authority or authorities, is laid down in article 5.2 lit. (b). According to it, the condition for applying the internal operator-privilege is that the internal operator and any entity over which this operator exerts even a minimal influence perform their public passenger transport activity within the territory of the competent local authority – notwithstanding any outgoing lines or other ancillary elements of that activity which enter the territory of neighbouring competent local authorities – and do not take part in competitive tenders concerning the provision of public passenger transport services organised outside the territory of the competent local authority. Thus, there is a clear limitation of the internal operator activities to the home market.

This limitation only ends when it is clear that the home market of the internal operator is to be opened up to competition. In this case the internal operator may itself take part in competitive tenders elsewhere, 2 years before the end of its directly awarded contract (article 5. 2 lit. (c)).

In the absence of a competent local authority a national authority may take advantage of the internal-operator privilege, although only for a geographical area which is not national. In this case, the internal operator is equally barred from taking part in competitive tenders outside the area covered by the contract directly awarded to him (article 5. 2 lit. (d)).

Summing up one can say that under the PSOR a direct award to an internal operator is possible where there is a tight control and a strict limitation of this internal operator to the local public transport market under the responsibility of the public transport authority in question.

Direct award beneath de-minims threshold (article 5.4)

Unless prohibited by national law, the competent authorities may decide to award public service contracts directly if their average annual value is estimated at less then 1 million Euro or if they concern the annual provision of less than 300.000 kilometres of public passenger transport services (article 5.4).

In case of a direct award to a small and medium sized enterprise operating not more than 23 vehicles these volume thresholds are raised to either an average annual value estimated at less than 2 million Euro or less than 600.000 kilometres of public passenger transport service per year.

Direct award in case of emergency (article 5.5)

In the event of the disruption of services or the immediate risk of such a situation, the competent authority may take an emergency measure. This emergency measure can either take the form of a direct award or of formal agreement to extend a public service contract. An imposition to provide certain public service obligations is also possible. Against this imposition the public service operator can appeal. This kind of emergency measure contract can not exceed a period of 2 years.

Direct award of rail contracts (article 5.6)

The furthest reaching exception is the one for transport by rail. Unless prohibited by national law contracts concerning transport by rail can always be awarded directly for up to 10 years, with the exception of those dealing with other track-based modes such as metro or tramways. These have to be awarded in accordance with the other awarding procedures available under the PSOR just described in the text above. In case of tram one may even have to apply the public procurement Directives unless the contract in question qualifies as a service concession (see chapter 8.1.1 above).

Competitive tendering (article 5.3)

The competitive tendering according to article 5.3 of the PSOR does not necessarily coincide with the procedures of the Public Procurement Directives. Article 5.3 just requires a procedure that is open to all operators, shall be fair and shall observe the principles of transparency and non-discrimination. Following the submission of tenders and any preselection, the procedure may involve negotiations in accordance with these principles in order to determine how best to meet specific or complex requirements.

Thus, unless prohibited from doing so by national law, the competent authority is subject to less explicit, detailed provisions in running its awarding procedure then it would have under the regime of the Public Procurement Directives, which explicitly regulate issues such as timelines, the amount of information to be given about the contract to be awarded, establishing and weighting of award criteria, etc.

But of course one is also free to take a look at the set of rules laid down in the Public Procurement Directives in order to get an idea on what to think about when tendering a contract. Actually, the negotiated procedure of the Public Procurement Directives combined with the recommendations we will depict in the following chapters may serve as a blueprint for what can and should be done when tendering according to article 5.3 PSOR.

8.3 Award practice and main difficulties

Each award process requires specific preparation. In the end, the path to follow will depend on the surrounding political, financial and legal conditions. Still in this guidebook we wish to present some lessons and recommendations that will be useful for authorities facing the challenge of closing a public transport contract with an operator.

First, we present an overlook over awarding practices as extracted from the cases studied within the scope of this study. This look at what is actually practiced gives a good idea of what works and what does not. Lessons can be derived from this.

After these lessons based on practical experience we present some recommendations and assessment methods. The recommendations are again extracted from actual situations all over Europe. Each award process requires careful preparation. This will save time and raises the chance of a successful contract relation once the awarding process is finished. Taking into account the advice presented in section 8.4 allows authorities to look critically at their own processes.

If we look at the current awarding practice throughout Europe we can conclude that an increasing number of Public Transport Authorities have become accustomed to different award procedures. The range of different procedures is very wide if one would go into detail. Table 4 presents the procedures applied in the case studies. In the first column a rough categorization is used whereas in the last column some distinctive/remarkable issues are addressed.

Table 4 Award procedures in different cases

Award procedure	City	Distinctive/remarkable elements
Quality partnership within free market	Leeds	♦ No formal process, typically mutual agreement authority and (incumbent) operator
Competition for market initiated authorizations	Wittenberg	♦ 'Competition for exclusive authorisations to operate commercial routes'. Fixed price -> competition only through quality, 3 networks. State aid issue because of fixed price mechanism outside Regulation 1191/69.
(Functional) tendering of network contract	Elmshorn, Haarlem Halmstad, Oviedo Grenland, Santiago de Compostella, Trieste, Sundvall, Parla/Madrid	♦ Elmshorn: functional tendering, 4 bids ♦ Grenland: minimum specification allowing bidders to present better value ♦ Santiago: 10+5 years ♦ Parla/Madrid: tramway ♦ Sundsvall: award on lowest subsidy requirement ♦ Trieste: a.o. ITS application and fleet renovation as criterion for award
Tendered route bundle contracts	Frankfurt, Munich Suburbs, Sondrio/Lombardy, Warsaw, Stockholm	♦ Frankfurt: Gross cost ♦ Munich suburbs: 'negotiated prolonging of contracts'. Tendering as back up in case of insufficient price level. ♦ Lombardy: restricted tender for bid requiring lowest compensation ♦ Stockholm criteria: 1. price per bus km 2. Quality through constant benchmark and internal improvements ♦ Warsaw: lowest price / vehicle-km as only award criterion
Tendering of gross cost bus route (L) and tramway (D) contracts	London, Manchester, Dublin	♦ London: 700 contracts, each route has its own contract, rolling program of tenders. Pre-selection through 'approved bidder list'. When on that list operators may tender (Manchester idem) ♦ Dublin: open tender and negotiation
Tendered rail management contracts	London	♦ Competitive tendering, most advantageous bid for DLRL, 4 bidders
Subcontracting by a public operator	Gifhorn, Porto	♦ Gifhorn: Direct negotiation with all interested operators. Repeated offers between 2 providers, leaving municipal operator empty handed ♦ Porto: Metro should organize by decree a competitive tender for operations (open procedure followed by prequalification and negotiation)
Tendered network management contract	Dijon, Lyon	♦ Pre-selection and negotiation according to national procedures
Contracting to in house operator, sometimes	Rome, Barcelona, Brussels, Budapest, Innsbruck, Prague, Amsterdam, Krakow	♦ Krakow/Amsterdam: Some competition elements, in negotiation form (or a hidden 'shadow procedure'(Amsterdam) ♦ Innsbruck: Vertical integration ♦ Rome: peripheral bus lines tendered

The table cannot claim to represent all common practices with regard to awarding in Europe. Still, we can try to identify some generic areas where difficulties may arise from PT Award procedures in Europe on the basis of the 34 cases. These problem areas allow us to formulate the following recommendations and general guidance in respect of contracts to be awarded pursuant to the provisions of the PSOR.

Several authorities tend to create their own procedures for the award, either or not as a result of national legislation. Also within Member States large differences exist between the types of award regimes applied.

Krakow (PL)

Krakow (Poland) used the so called 'free hand negotiations'. This is a form of direct awarding in the Polish procurement law. In practice, it means that the authority negotiates the contract price with only one chosen operator.

Throughout Europe there is little harmony/standardization of procedures not subject to the provisions of the Public Procurement Directives. Award of contracts –either directly or via a form of competition – often takes place in a judicial grey zone.

Innsbruck (A)

By individual regulatory act, the Innsbruck City Council established the municipal Innsbrucker Verkehrsbetriebe und Stubaitalbahn, IVB. A contract between the City and its competent authority regulates the quantity and quality of public transport services to be procured by IVB. The latter is contractually bound to procure services with a lump sum defined in the contract.

Austrian national public transport law is not very clear on the subject of awarding public service contracts. As a rule, most Land capital cities are also owners of the vertically integrated public transport operators that build, plan and operate the urban network either based on formal or informal agreement. Regional public transport is procured by public transport authorities by way of, generally, directly awarded contracts based on line concessions.

Award criteria differ case by case. It is not clear, why so many different approaches are being used. It is questionable whether authorities make sufficient use of experiences accumulated by other authorities in their application of award criteria.

Oviedo and Santiago de Compostella

Award criteria for competitive tendering in Oviedo were:

- Master plan proposals (integration land use, coverage, reliability, cost estimates) - 70 points
- Proposals for service and company organisation - 30 points

- Technical proposal for initial network-30 points
- Methodologies for contract monitoring- 70 points
- Service improvement proposals- 80 points
- Economic offer – 100 points

In case of Santiago, the following criteria were applied:
- Economic proposal by reference to annual costs- 5 points
- Proposals for coordination with interurban transport- 50 points
- Network optimisation - 25 points
- Commitment in terms of passengers – 25 points
- Service organisations, ticketing, operational management -20 points
- Other improvements -20 points

Competitive elements are sometimes used as a potential stick for incumbent operators (in case direct negotiations fail)

Amsterdam

The contract was directly contracted to GVB, 100% owned by the Municipality. The awarding authority is the City Region for Amsterdam. The contract was awarded after a procedure where the GVB made a bid that was compared with a 'shadow bid' that had been prepared by the City region and kept secret until GVB issued their bid.

Sub-contracting can be an obstacle to transparency, especially when the division of roles is blurred.

Dublin tramway

The Railway Procurement Agency was established as an independent statutory body in 2001. The award process of Dublin tramway ran via an open tender including a negotiation option. Technically, the award was made by the government and RPA was only involved in the evaluation. The reason for that was that at the time of award, RPA was still part of 'CIE', a company which could have been a potential bidder itself. After the award, RPA became the main contracting partner for the operator.

Information about the procedures applied is very limited, evaluation of awarding processes takes place only very rarely.

Limburg (no case study within the framework of this study)

In the Dutch Province of Limburg a large (€ 1,2 billion) and complex (multi-modal, train, bus and taxi) contract has been awarded in 2006 after an open tender procedure. This procedure characterised itself by the following measures which were meant to ensure the necessary transparency, non-discrimination and a level playing field:
- Extensive market consultation has been organised to provide the necessary information and data, to bring potential bidders to the level of

the incumbent operator. All data were available on internet during the process.
- An independent Tender Board has been installed with the explicit function to safeguard the objectivity and integrity of the tendering process; recommendations of the board and follow-up have been made available to the public.
- An Evaluation Commission, independent from the provincial authorities, has been installed to appraise the bids. During the evaluation, this commission worked in two separate groups, with each having its own evaluation methodology. Both groups happened to come out with the same winner.

These measures where in particular important because of the fact that the province partly owned one of the potential bidders.

The level of detail and specification tender documentations ask for differs substantially for similar contracts. Public transport authorities are reluctant to grant freedom to commercial operators.

Grenland

This contract in Norway was awarded after competitive tendering. The operators were invited to tender for optional service levels with at least the same 'opening hour' for all lines. The award criteria were based on the highest bid for the exclusive right to operate the service on the output-based contract. The winning operator is fully responsible for the operational and tactical level of its service within the defined framework.

Authorities struggle with finding ways for risk division and compensation within legal limits.

Wittenberg

This suburban German district used the model 'competition for permissions to operate commercial routes' (competition for authorisations). The amount of funding was fixed, operators could only compete on quality. This system of financing was qualified by the EC as state aid because of the immanent risk of overcompensation, resulting from the missing link between payments per passenger and actual costs per passenger. The EC granted an exemption however, because of the immanent positive incentive to improve quality.

The EC applied general state aid law in this case because of the German position regarding the applicability of the Regulation 1191/69. The German position being that German public transport law established a valid exemption form Regulation 1191/69 applicability with regard to certain types of contracts. The ECJ decided in its 'Altmark Trans'-ruling (C-280/00) that even if national German public transport law established such an exemption general European state aid law (article 87 of the treaty) still applies. What is more the ECJ formulated four criteria. Only when these are met a contract put outside the scope of the Regulation 1191/69 by national law does not qualify as state aid. These criteria are clearly modelled on the limitations laid down with regard to financing in

the Regulation 1191/69, one of them being that there shall be no compensation higher than the cost actually incurred by the operator in the conduction of the public service obligation.

Many authorities fear transaction costs and time consuming procedures related to public procurement or to procedures conducted pursuant to the PSOR.

London

London buses operate under gross cost contracts. The combination with a quality incentive contract aims to provide incentives for operators to undertake investment in their operation. Contracts in London are now 5 years, with a possibility for a 2-year extension. Administration costs are minimised by use of a common tender process, and use of a single form of contract with standard requirements.

Few small and medium sized enterprises (SME) seem to be able to intervene in the contestable market.

Munich suburbs (D): Tendering of route contracts

In the greater metropolitan area of Munich competitive tendering for gross-cost bus (route) contracts takes place in eight suburban districts. The contract period is usually 6 to 7 years. Gross cost contracts within suburban transport (only bus services affected, mainly regional routes and feeder traffic for light rail) are used.

The suburban districts try to realise competition in their area with a sense of proportion. The aim is to secure chances for small and medium sized bus operators. They succeeded to increase the number of these operators. Tendering is used only when prior negotiations with the existing operators on those routes have delivered insufficient results, which takes places several times. Newly established routes and routes already tendered will be tendered at any time.

Services are planned in a constructive (detailed) manner by the authority within an integrated passenger transport system. The authority plans and defines timetables, routes, minimum quality criteria (e.g. new busses for every route to be tendered). These parameters are part of the public service contract between PTA and operator.

Operational decisions are to be based on the given design of routes and timetables and are the (autonomous) responsibility of the operator (to the full extent, including vehicle schedule, a duty roster). The operator just has to fulfil minimum quality criteria, e.g. for vehicles used: new vehicles for regular services, reduced quality criteria for supporting vehicles used in the peak period.

Monetary value of quality standards is a big challenge.

Stockholm

The contract has been awarded based on two criteria:
- price per bus km (40%)
- quality measured through benchmarking (60%)

The last criterion was given a monetary value depending on how far from the maximum (quality) the grade is. This value is added to the prince per bus km forming a comparative figure. That figure settles the final market. The internal quality is measured through a specific external audit model.

8.4 Recommendations and assessment methods

Based on the recommendations of section 6.4 and chapter 7 and the analysis within this chapter, some concluding and summarizing general recommendations and assessment methods will be given in the following. These recommendations are following the tasks and steps for the authority as presented at the beginning of this chapter.

In the following paragraphs we wish to provide authorities with concrete guidance on the steps concerning awarding when awarding contracts falling within the scope of the PSOR. The advice is going to be mainly procedural.

The below guidelines have been written down in such a way that they are helpful in understanding the provisions of the PSOR both in situations of direct contracting as well as for competitive tendering. Naturally, there are differences between the two. The Public Procurement Directives contain an elaborated set of procedural requirements. The PSOR competitive tendering procedure can –although not on a similar level as directive procedures – be subject to formal rules regarding publication, equal information for parties, deadlines, etc. The extent to which this is the case will depend heavily on national procedures as PSOR itself only includes the basic principles for the process to be followed. Direct award may include competitive elements (e.g. benchmark, shadow bids), but the discussion will be concentrated on the actual conclusion of the contract.

However, we should refer to an interesting development that takes place. The introduction of contracting has created a situation where similarities arise between situations of direct award and competitive tendering. Contracting authorities make use of systems like benchmarking before concluding a contract. Sometimes tendering is even used as alternative/threat, in case (direct) contract negotiations have no satisfactory result.

Screening of the market of service providers

Particularly in case of complex/high risk contracts it is recommendable to screen the market to see whether and to what extent operators are able and willing to provide the desired services and whether the ambi-

tions are realistic (see also section 6.2, 6.4, 7.2 and 7.5). It is advisable to keep a broad perspective in the definition of the assignment. Initially a wide range of companies should be consulted, even if they do not qualify immediately or on their own. Eventually consortia will be formed by the market to meet the client's requirements.

In case direct award under the provisions of the PSOR is also considered as an option screening of the market can be a perfect tool in order to assess whether and to what extent the PTA would have alternatives for the fulfillment of (part of) the services. A screening of the market can also be helpful for determining reasonable contractual conditions for the internal operator that still include a challenge to improve the performance.

But one should be aware of the fact that national procurement law may prohibit tenders conducted only for the purpose of market price evaluation. Market screening must not be confused with actual tendering. It has to stay below the level of a public call for tenders. What is more, all information given to the market players consulted must also be made available to every operator who later takes part in the actual call for tenders, if there is one.

If the ideas about the exact services are not fully grown, discussion with market parties can also be used to make the ideas of the tendering authority more explicit; for example in case decisions need to be taken for intermodal services and/or integration of public transport services and spatial planning.

A market consultation is an appropriate way to undertake this action. Make explicit that the consultation is not a pre-selection for tendering.

Secure competition

In case of using competitive awarding under the PSOR it is recommended to secure a sufficient outcome by securing competition in the long run. The question, therefore, might be how to encourage smaller companies and new market players to become active on the public transport market. The authorities should prevent too big power of the companies in comparison to the authority. This may be the case especially by net cost contracts, where usually great freedom is provided to the operator and much expertise (specialist knowledge) goes to the operator, too. By using gross cost contracts the authority has to bring together more specialist know-how within the authority.

Securing competition in the case of direct award under the PSOR is not necessarily a contradiction. Particularly in case of direct award consideration should be given to the scope of the exclusive rights. For example in the field of tourism entrepreneurship should not be restricted by exclusive rights. If the operator is not pro-active in this area, the exclusive rights should not allow for legal actions against initiatives from others.

In case the public transport authority wants to reduce market entry barriers and stimulate new entrants, especially small and medium sized

companies, to enter the market, the following recommendations might be useful when awarding contracts under the scope of the PSOR:

- Use gross cost contracts together with constructive awarding
- Make clear definitions of the breakdown of tasks between the operator and the authority
- Award small or smaller packages (sub-networks and route contracts)
- Do not award all services at one time: Analyse what the market is able to pick up
- Award some minor packages to be able to learn on the authorities side as well as on the operators side
- Reduce complexity within the awarding procedure and within the contractual relationship
- Reduce the risk level of the contract
- Secure competition and reduce market entry barriers in the medium and long term so that operators can always enter the market (preventing the market to become encrusted)
- Retain ownership of some strategic assets, such as depots or special vehicles to prevent barriers to enter the local market.
- Encourage the operator invest in staff and in its education to avoid competition on lower staff tariffs in favour of competition on skills and competences (quality)

Please note that in some cases local market structures do not enable the entrance of small and medium sized companies. In this case it might be useful to tender big packages with net cost contracts and functional awarding, which might attract bigger companies to enter the local market.

Specify the subject of tender/direct award

Go back to the fundamentals of the desired services in the first place (as identified within section 6.2):

- Mobility ambitions for the region/network
- The role of Public Transport within those ambitions

Two basic approaches for specification (see section 6.4):

- A **functional specification**: only broad (sometimes minimum) service requirements (route, frequency etc.) and space for operator to optimise, detail time tables, vehicles, information and other services
- A **constructive (detailed) specification**: usually specification of routes, timetables, days, tariffs, vehicles, information etc.

Only on case by case level the most appropriate basic approach can be selected. The problem of functional tendering may be that it is difficult to compare bids. The constraint of detailed specification may be that the service provider focuses too much on the authority and too little on the customer. Please take notice of the actual experiences presented amongst others in the analysis of this study.

It is important, however, to determine exactly what is expected of the service provider! Both functional and detailed tender documentation should refrain from ‘open end’ requirements as they are problematic

during award. Even in case of direct contracting under the PSOR it is crucial to state exactly what is expected of the service provider.

A draft contract that will also be included in the tender document is always an excellent tool to make clear which party will assume the various responsibilities. Bidding parties will also be able to draw their conclusions on the risks and responsibilities to be taken and may comment contractual matters during the procedure.

Specification does not imply that any entrepreneurship and creativeness of the bidders should be 'killed'. Therefore, instead of setting technical requirements (fit to specification), objectives could be defined for the operator to be met. By the means of such a functional specification (fit for purpose) the market is free to come up with the most favourable economic solutions. Fit for purpose could of course be combined with certain input parameters.

There is a direct relation between the character of the specification and the possible award process. Only in case of a very detailed specification award can take place on the basis of price only (in principle an auction would be possible). Obviously if the specification allows for initiatives from bidding parties, qualitative elements should be taken into consideration.

Fix the procedure and coordinate the tenders

We recall that an important difference between PSOR and the directives is that the latter elaborate on the procedure in great detail whereas PSOR only refers to some basic principles. How the precise procedural picture looks like will depend in the end, specifically for PSOR, on national legislation.

It is crucial in both situations to determine and communicate the procedure in advance. Failure to do so often results in costly and time-consuming legal processes. An explicit procedure shows professionalism and will therefore increase the interest of market parties.

As presented in section 8.2, different procedures can be applied: self provision, direct award to internal operator (PSOR), competitive tendering with negotiation (PSOR), open, restricted and negotiated procedures with and without prior publication and competitive dialogue (Public Procurement Directives). Market parties will need to know what procedure will be applied. Procedures are stated in the directives and implemented in national legislation. When the PSOR regime is applicable, authorities will need to indicate their choice of awarding procedure at the same time as the compulsory publication of their intention to award a contract. This has to take place at least one year before the actual start of the awarding procedure (Art. 7.2 (b) PSOR). For competitors it will be specifically important to know whether and what role 'negotiations' play at what stage of the process.

For all tendering it is important to coordinate the various tenders that are launched. Overall, the market is very concentrated and often the

same set of bidders is expected to submit a proposal. Prevent a hub of tenders, overloading the tendering authorities but also the potential bidders, with their limited tender teams. This will increase the amount and quality of the proposals submitted.

Sub-contracting and separate contracting of tactical and operational elements

- Do not abuse sub-contracting to prevent competitive tendering
- Only separate tactics and operations in complex (metropolitan) networks

Standardization and limitation of transaction costs

Transaction costs of procurement can be high, particularly if the wheel is reinvented.

- make use of experiences elsewhere, standardize where useful and possible to become predictable for the market and reduce transaction costs
- Be as simple as possible. Complicated award criteria often lead to misunderstandings, legal procedures and even the need to start all over again with the procurement.
- in particular, adopt/use legal standards applied in general procurement processes and contracting
- If possible, standardize procedures and award criteria as much as possible nationwide, which will also contribute to the level playing field for operators.
- Be aware of the impact of transaction costs on the number of bids. Restrict general requirements and administrative burdens in the process to those items that are absolutely necessary.

Equal treatment, non-discrimination, transparency

- Also when there is no obligation to award a contract according to the Public Procurement Directives, assignments should always be published in such a way that companies in other member-states are able to take notice of this announcement. According to European jurisprudence, transparency as such does not explicitly imply an obligation for an open tender.
- Use modern tools for publication (internet) and ensure international exposure and professionalism. This attracts competition.
- Specify the procedure in advance, from the beginning to the end
- Avoid any action that may lead to suspension of discriminatory acts/non equal treatment, create an open platform
- Take the necessary distance from the incumbent operator.
- Ensure that throughout the procedure, all competitors have access to an equal and necessary level of market information to become competitive.
- To be able to share strategic information among all bidders during the tender process, the contract should entail an obligation for the incumbent to submit the necessary market data during the implementation of the contract and at the end of the contract, notwithstanding confidential business information.

The award criteria in procedures under the PSOR

In the fulfillment of the ambitions the award procedure plays a pivotal role. In case of direct contracting or internal services as well as in the case of a fully open tender.

The award criteria should be fixed on the basis of political decision making. (Political) Discussions about award criteria *after* publication of tender documents are practically and legally extremely dangerous.

The award criteria should allow for comparison between the respective bids. Open and/or vague award criteria lead to bidding elements that are impossible to handle in practice. Uniform interpretation should be possible.

The award procedure allows parties:
- To make transparent which services can be expected against which conditions
- To show what precisely the services can contribute to mobility ambitions
- To make visible towards citizens that value for money is purchased
- To consider respective options in the way operators/market tensions are involved in the process
- To specify risks and responsibilities

When developing an awarding procedure under the PSOR one should pay attention to these aspects. They should be considered, regardless of any legal obligation.

But do not get caught by your own award criteria. Make sure the award takes place on an ambitious but realistic proposal regarding the development of the market, increase of ridership and operational efficiencies. Avoid the selection of a winner with only the best promises, by organising the competition around a given base case scenario and by checking any projections on its realism.

This means that every bidder should give an insight in the operational costs, for example to assess the expected levels of fare box revenues to cover these costs. In this respect, opt for an annual monitoring scheme in which already in the first year of operation performance is compared with the projections as agreed (see section 7.4.2).

Risks and minimum criteria

- Do not maximize the risks of service providers, this increases the price of bids (see section 7.2)
- Be suspicious of bids that do not include references/financial means to risks without motivation. This will lead to legal procedures when the risks occur. Award points for bids that have addressed risks in a convincing way.
- Only transfer those risks to the operator that he/she can influence (see section 7.5)

- A less prescriptive approach can 'de-risk' the process and decrease the price of a bid.

Note also that you intend to raise interest of the market. High risks and ability demands may very well lead to fewer bids. Be aware that high entry barriers, example given with respect to the financial situation and the track record, may prevent the interest of new and innovative parties.

Compensation and bonus-malus

Ensure that the compensation for the services given by the authority is proportional in relation to the services rendered. Also, for bonuses to be awarded, there must be a reasonable relationship between the bonus paid and the performance improvement (quality and quantity of services) to avoid overcompensation and thus state aid.

Based on the explanations of section 7.4.1 we recommend to take into account that the bonus-malus in the designing of the compensation scheme is only effective if:

- There is also sufficient freedom for the entrepreneur to do business and develop the market.
- There is a clear relationship between the bonus/malus and the compensation/effort/costs for the authority/operator related with performing to receive extra income or avoid extra costs.
- There is a professional contract management after the awarding. Innovative contracts require consistent application. Contract management should be possible without constant dependency on legal advice.
- If you master several contracts, ensure that compensation schemes work out equally in each case. Educate your human resources in contract management and ensure an exchange of experiences.
- Be aware of strategic behaviour of the contracting parties:
  - Instead of the desired pro-active approach, contractors may wait for signals that something is wrong, as they estimate that correction can only take place after the formal complaint.
  - Operators may just choose to ' pay the penalty' in case the malus is financially less painful then compliant behaviour

Find a balance between the bonus/malus system and the services delivered, as it should not lead to a higher price per kilometre or less kilometres in total. This optimum may be reached best by letting the operator decide autonomously on projected quality levels/increase of the market. Actual application of a 'malus' can work out negatively for the whole atmosphere of the cooperation. Take that into account when drafting the circumstances for a 'malus'.

Do not automatically expect the best incentive mechanism through bonus/malus. Be aware of the possibility of adverse effects. If designed poorly they can easily be abused. Make sure however that the operator has an incentive to improve quality and quantity of services.

In each case, payments can in principle flow from the authority to the operator, or from the operator to the authority. This depends on the market situation. Awarding a very profitable commercial route to an op-

erator by competitive tendering may result in a payment from the operator to the authority. It is however more usual to see payments flowing from the authority to the operator as many public transport services as such are not commercially profitable. But this also depends on the structure of the additional incentives included in the contract.

Monitoring and evaluation

- Create an open environment for discussion and continuous improvement through publication, addressing both clients/customers as well as market parties
- Both authorities and operators cannot predict the precise situation and public transport needs in the years ahead (new housing, new national financial schemes, different influence of railway services). Ensure some flexibility in the contract for unforeseen circumstances/new ambitions
- Fix an evaluation process, preferably not depending on service provider data only. Make explicit beforehand that contracting party should co-operate with the evaluation procedure.
- Elements for evaluation: number of passengers, ticket types, revenue, mileage, complaints, information, website, flexibility, connections with other services
- In case a contract prolongation is possible without tender, specify precisely the criteria for such a prolongation and the way these are monitored. Of course, total maximum contract duration, including prolongation, should be within PSOR limits.

Preparing the (existing) actors

To ensure a successful implementation of the draft contract, it is recommended to prepare the actors ability to handle the new situation properly. While authorities need to prepare their expertise according to the contractual features selected, operators need to get some experiences in dealing with the situation that is sometimes new for them. Even if the operator has got some experiences with contractual relationships (e.g. with other authorities), one always has to recognise the specific local situations and new developments.

In case of an existing municipal internal operator several transitional considerations have to be taken into account by the authority, being the owner of that company at the same time:

- There may arise the need to enhance the protagonists' abilities to handle the new situation in particular with respect to contract management
- While using competitive awarding the internal operator has to compete with competitive (mainly private) operators. In case of direct awarding the criteria laid down in PSOR have to be recognized.
- In case of an insufficient financial situation of the internal operator the need to prepare a plan to restructure may arise, which would be needed in case of competitive as well as direct awarding. The restructuring plan should be separated from the public service contract for public transport.

Using public service contracts, defining (minimum) service levels as laid down in the strategic aims by the authority, may lead to conflicts of interest with the treasurer during the contract time. A clear division of tasks between general policy aims and treasuring interest within the administration of the authority may be helpful to enhance the contractual relationship.

Investment and Ownership

Within several public transport systems new investments have to be made, either in vehicles (e.g. tram-vehicles) or in infrastructure (e.g. new tram line). Such investments regularly do have a long term focus whereas contract periods usually have expired before the amortizing period of the investments ends (see section 7.5.3). For some infrastructure projects, the contract period may expire before these projects can be put into use.

To secure sufficient investment (and avoid other negative effects of a natural monopoly) it is recommended to divide the role of ownership. Short term and medium investments (and their ownership) may in general be borne by the operators. Long term investments (and their ownership) needs to be separated. It might be useful to secure very long term investments, such as rail infrastructure, in the hands of the authority. The construction of such an infrastructure usually is extremely costly and sometimes has got a huge impact on the environment. The decision to build such an infrastructure must be reserved to the authority to secure sufficient influence.

Rail infrastructure requires specialist knowledge in the areas of rail construction, energy supply, safety, etc. It is recommended to move knowledge out of municipal operators, responsible for rail infrastructure, to organisations under control of the authority in case of tendering to secure knowledge.

Nevertheless, the management and the operations of infrastructure can be handled by various parties, even by the operator, as long as non-discriminatory access to the rail infrastructure is provided by safeguards. Clarity about the division of tasks, competences and responsibilities relating to the infrastructure is needed then. With respect to special vehicles it is recommended to introduce a “buy-back guarantee” by the authority in case the operator loses the following tender.

Please note that operators, usually different to municipal administrations, are able to invest at the beginning of the contract period and refinance these investments by stable compensations from the authority over the contract period.

Appendix A: Initiative: Market versus authority

Seen from a legal point of view, public transport service regimes can be divided into two categories: 'authority initiative' and 'market initiative'. In short, the main distinction is between the organisational forms where the right to initiate the creation of passenger transport services is reserved to the authority (who could, however, delegate this to an independent operator) and those organisational forms where this right lies 'in the market', for any one to make use of.

It is important to note though that the distinction between 'authority initiative' and 'market initiative' is a national phenomenon. The PSOR as the future European-wide regime allows for both organisational forms. Article 2 (e) clearly states that a 'public service obligation' can either be 'defined' (authority initiative) or 'determined' (market initiative) by a competent authority. The use of the word 'determined' implies that something is fixed at the end of a process set in motion by somebody else, in this case the market (the operator). Thus as far as the PSOR is concerned it does not matter who initiated the process as long as it results in the conclusion of a public service contract.

The fact that the distinction between 'authority initiative' and 'market initiative' is a national one does not render it irrelevant though. The balance of power and responsibilities between the authority and the operator varies very much all depending on which of the regimes is applied at the national level. Things are handled quite differently under the two possible regimes and it is important to know which one applies.

In authority-initiated regimes, those authorities which have received the responsibility for transport (i.e. the 'transport authorities') have the *legal* monopoly of initiative. This means that autonomous market entry is in principle legally impossible and that all production or market entry is the result of a conscious action by authorities to produce service or to request the production of services,

Authority initiative regime

The French public transport legislation (outside the Paris region) identifies local and regional authorities that are charged with the organisation of passenger transport services. These authorities are, according to the law, entitled to produce the transport services themselves unless they take a conscious decision to delegate this prerogative to other transport operators. In such a case, the French law requires the authorities to use a specific competitive awarding procedure to select the operator that will be charged with the passenger transport services.

This legal regime does not foresee the possibility for non-contracted transport operators to initiate transport services by themselves, loose from a request from a designated organising transport authority.

In market-initiated regimes, the supply of transport services is based upon the principle of autonomous market entry resulting from a market process with more or less regulatory checks at the entrance. This varies from pure 'open entry' systems at one extreme to strongly regulated 'authorisation' regimes at the other extreme, with various kinds of intermediate systems with lighter forms of regulation.

Market initiative regime

The purest example of market initiative regime in local public transport in Europe is to be found in Great Britain (outside the London area). Operators have the right to provide services upon their own initiative, according to routes, timetables and fares determined by their own commercial insights. There are no exclusive rights, meaning that direct competition between bus operators on the streets is allowed, even though this is not a generalised case.

The German legal regime for local public transport is also based upon the principle of market initiative. The main difference with the British regime is that the provision of passenger transport services in Germany is submitted to the award of an authorisation, giving the operator for a specified period the exclusive right of operation of the services described in the authorisation. Authorisations are delivered by designated regulatory authorities, taking the regional transport planning of regional transport authorities into account in their award decision. The exclusive authorisation to operate the public transport service in question is often reissued at the end of a validity period, unless there is a competing application from another market player. In this case, a competitive awarding procedure has to take place.

Note that a regime based upon the legal principle of 'market initiative' does not necessarily mean that the (transport) authorities play no role, or only an insignificant role. Under such a regime authorities can, e.g., arrange for the provision of additional services where no such services are provided by the market and where they consider such services are desirable from the point of view of the realisation of their transport policy aims. This does not transform the legal regime into an 'authority initiated' regime. It only means that authorities behave in such 'market initiated' regime as additional provider of services.

Authority intervention in market initiated regimes

Regional transport authorities in Britain (outside London) arrange for the provision of additional passenger transport services where such services are not provided by the commercial, deregulated bus market:

- Basing themselves upon their transport policy objectives (e.g. accessibility standards for various urban areas, or mobility standards for various groups of population), they identify those areas with insufficient passenger transport service supply and define additional services that they want to provide. Typically, services requested by authorities and not provided by the free market are evening services and Sunday service; but this varies all according to the specific market conditions.

- The regional authorities in charge of public transport then organise competitive tendering procedures to select operators to provide those services in addition to the existing commercially supplied services.
- Note that these additional services ordered by authorities do not benefit from any exclusive right.

Appendix B: Quality loop

One of the main objectives for public transport contracts is to obtain the best possible service for the subsidies transferred to the public transport sector. This implies that demands must be made on public transport through quality-dependent subsidies, simultaneous to the basic conditions such that these goals can be achieved. The introduction of quality-dependent subsidies must therefore take into consideration local conditions and the special characteristics of the market of public transport services, both with regard to competition and as a part of the overall public services. This means that quality-dependent subsidy contracts can have a very different content dependent upon where in Europe reference is being made.

We aim to define the service quality in urban public transport using a simplified quality cycle (figure 1.1). This is based on the ISO 9004.2 norm loop for quality in a service:

- **Expected quality**: This is the level of quality demanded by the customer and it can be defined in terms of explicit and implicit expectations. The level of quality wished for by the passenger can be defined as the sum of a number of weighted quality criteria. Qualitative and quantitative surveys can be used to identify these criteria and their relative importance. Implicit expectations can also be determined from such studies.
- **Targeted quality**: This is the level of quality that the company aims to provide for its passengers. It is dependent on the level of quality expected by the passengers, external and internal pressures, and budgetary constraints and competitors' performance. The targeted service can be defined in terms of the results to be attained for the customer. It is made up of a reference service, a level of achievement for the reference service and a threshold of unacceptable performance.
- **Delivered quality**: This is the level of quality that is achieved on a day-to-day basis in normal operating conditions. Disruptions to service, whether they are the fault of the company or not, are taken into consideration. The quality delivered is evaluated through quality indicators which are based on the passenger viewpoint. The measurements are established using statistical and observation matrices. In this respect, it must be understood that delivered quality is evaluated from the passenger viewpoint, and is not simply a technical evaluation to show that a process has been accomplished.
- **Perceived quality**: This is the level of quality perceived, as far as possible objectively, by passengers in the course of their journeys. How a passenger perceives the reality of the situation depends on his personal experience of the service, or associated services; all the information he receives about the service, not only that provided by the company, but also information coming from other sources, his personal environment, etc.

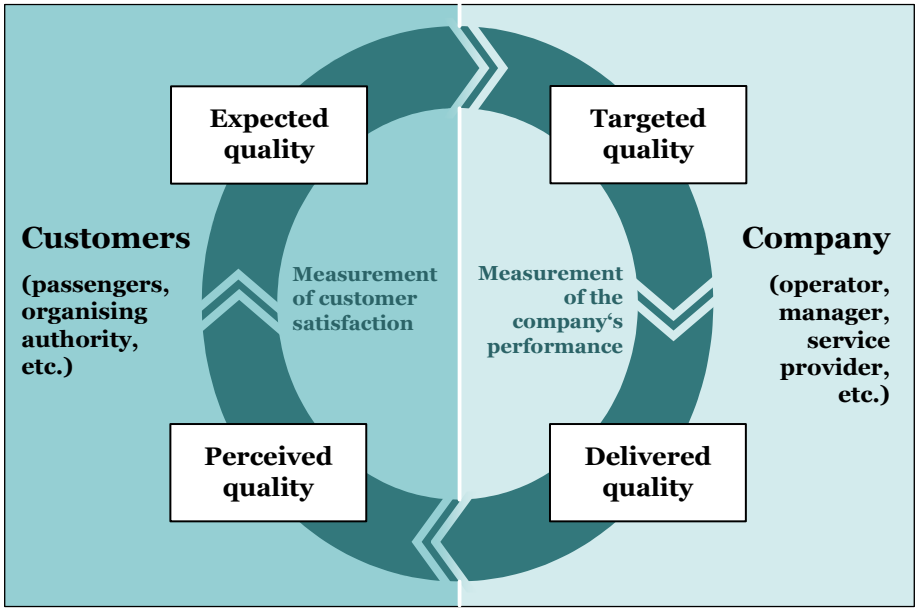


Figure 25 The quality loop (Source: Quattro, 1997)

This quality loop illustrates two worlds with two distinct viewpoints, one the customer, the other the supplier. Improving service efficiency and quality means closing the four gaps:

- The gap between perceived quality and expected quality: This gap is entirely from the customer's standpoint; measuring the gap provides information on customer satisfaction or dissatisfaction. The measurement indicates whether the passenger interviewee is likely to use the service again.
- The gap between expected quality and targeted quality: A wide gap highlights that the market does not properly cover the target: The service defined by the company does not meet key customer expectations. This may involve a service that has not been fully defined or may point to a problem with the selected issues that mainly address minor expectations and that do not take major customer expectations into account.
- The gap between targeted quality and delivered quality: This gap is entirely from the company's standpoint; measuring the gap makes it possible to monitor company efficiency. The gap is defined in terms of the service provided to passengers; it is the measure of the company's global efficiency in providing a customer service that meets its goals. The reasons for a wide gap in this instance can be very different. It is logical to immediately think that the company's efficiency is lacking, but other reasons can have an impact, such as:
  - an unrealistic level of demand that cannot be reached,
  - an underestimation of the company's social, economic or even political constraints,
  - major event that can seriously disrupt the service (bombings, disasters, strikes, conflicts),
- The gap between delivered quality and perceived quality: A wide gap is a sign that the interviewee knows little about the service provided; or that the interviewee's feeling (usually related to the im-

age they have of the company) undervalues the service provided. The way a customer sees the performed service depends on the personal experience the said customer has had of the service. It also depends on the information about the service that they have received: this information is partially controlled by the company but also comes from the customers' environment (the press, surroundings, and so on).

The quality loop can also be used as a reference for a classification of alternative contract types based on the allocation of:

- Market initiatives (how is the expected quality defined and who is responsible for planning and designing the targeted quality?)
- Commercial risks (how is the gap between targeted, delivered and perceived quality monitored and included in the contract, in monetary terms?)

Appendix C: Glossary

Efficiency

Allocative efficiency: Relates to the production of products or services that best meet the preferences of consumers, expressed in their willingness to pay the accompanying (cost efficient) prices.

Cost efficiency: Relates to the production of products and services (of a specified quality) at minimum possible costs.

Economic efficiency: Relates to the combination of allocative and cost efficiency.

Effectiveness: Achieving the stated objectives. Action having an effect on producing a definite or desired result in economical terms.

Deregulate, liberalise, privatise

Liberalise: to make autonomous entry to the market easier

Deregulate: to reduce authority rules on the actions of market suppliers

Privatise: sell (to individuals, stock exchange,...) former state (municipal,...) assets, such as companies

Market failure, competition, contestability

Market competition: Competition between a multitude of companies in an open market, that struggle among themselves in order to get their products and services sold, setting the prices that their costs and market enable.

Market failure: Situation where the market produces inefficient results due to the existence of any of the following factors:

- imperfect competition,
- natural monopoly,
- public goods,
- externalities,
- common ownership of goods,
- lack of perfect and symmetric information,
- incomplete markets.

Market contestability: Characteristic of certain markets in which incumbent companies are threatened by potential entrants, causing efficient results without the existence of perfect competition conditions. Baumol, Panzar and Willig (1982) hold that contestable markets guarantee the social benefits of perfect markets without the need of making strong assumptions about the number of companies that must be operating in the market. Shepherd (1984) has observed that these results are only valid under the following assumptions:

- Entry to the market is free and without limits.
- Entry is absolute.
- Entry is perfectly reversible.

Authorities

Authority: government or (its) administration.[25]

Authorities can play several roles, both in market initiative regimes and in authority initiative regimes. It is essential to distinguish the various roles authorities fulfil in order to describe the functioning of organisational frameworks. It is also important to note whether these roles are or are not fulfilled by distinct authorities, and to be aware of their mutual relations. In many cases, several levels of authorities are present, such as local, regional and national authorities. It is important to understand adequately the relations that may or may not exist between these various levels, both in terms of financing and in terms of co-operation[26].

Licensing authority assesses the compliance of potential operators with technical standards and the fulfilment of legal prerequisites (i.e. granting access to the profession) both in market initiative regimes and in authority initiative regimes.

Authorising authority judges the desirability of actual market entry by autonomous licensed operators, i.e. granting access to the market, in market initiative regimes.

Contracting authority takes the initiative to create a transport service and to select (by competitive tendering or otherwise) a licensed operator for the contract. Such authorities are also called **organising transport authorities** as they have the powers, and maybe the duty, to organise (i.e. create) passenger transport services in their jurisdiction under an authority initiative regime. Transport companies in such a framework act on behalf of the transport authority.

Transport planning agencies are specific (semi-)independent institutions created by 'the authority' (mostly the transport authority) to administer in a professional way a number of tasks related to the planning of transport services in the region of competence of the authority. This may include the contracting (through competitive tendering or otherwise) of transport operators. When such an agency does not exist, the planning functions are carried out by transport operators or directly by the transport authority.

[25] Remark: when referring to 'the authority' we do, unless stated otherwise, refer to the whole government (at the relevant, national, regional or local level) including its support staff in the form of civil servants.

[26] One example is the creation of co-ordinative bodies such as *Zweckverbände* and *Verkehrsverbünde* in Germany.

Regulatory transport authorities are authorities that have some powers to regulate the actions of transport companies on the passenger transport markets. The powers of such authorities can vary considerably according to the legal framework of the country considered: from very weak regulators of the free market, to very powerful regulators with powers close to those of organising authorities. Transport companies in such a framework are considered independent companies (be they private or public) acting upon their own initiative on a market. Regulatory authorities actually set the 'rules of the game' for operators present on the market. They can also be the *watchdog* enforcing the rules of the game.

Enterprising authorities are authorities that create passenger transport services and bear the entrepreneurial risks on those transport services. This can be done by owning a public transport company or a non-corporatised internal division producing transport services, but also by outsourcing such an activity to a third party. One example is when authorities own a public transport operator under a market initiative regime and where the public operator is one of the various potential operators. Another example is that of public provision of passenger transport services (whatever the exact company structure) under an authority initiative regime.

Subsidising authorities are authorities who pay financial contributions to the public transport system. Subsidies exist mainly for two purposes: stimulating the general supply of services and redistributing wealth to politically chosen target groups in society (such as handicapped, elderly, unemployed,...). Subsidies to the public transport system need not necessarily be paid to the operator. Subsidies can also be distributed via the users of the system.

Licence, authorisation and concession

Licence: right to enter the occupation of passenger transport operator ('operator'). A licence is granted on the basis of qualifications (concerning e.g. good reputation, financial standing, professional competence) that attest the ability to be an operator. Hence, a licence concerns access to the profession.

Authorisation: an exclusive or non-exclusive right to operate specific services that a (licensed) 'operator' can apply for to a competent authority. In the case of an exclusive authorisation, other 'operators' are excluded from providing the same services under the same conditions. The authorisation procedure makes it possible to check whether the candidate operator fulfils all the necessary (objective and non-discriminatory) legal and administrative requirements.

Contract: a "public service contract" means one or more legally binding acts confirming the agreement between a competent authority and a public service operator to entrust to that public service operator the management and operation of services subject to public service obligations; depending on the law of the Member States, the contract may also consist of a decision adopted by the competent authority taking the form

of an individual legislative or regulatory act, or containing conditions under which the competent authority itself provides the services or entrusts the provision of such services to an internal operator.

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