



ADVANCING
PUBLIC
TRANSPORT

▶ STUDY

CONTRACTING IN TRANSIT

THE VALUE AND BENEFITS OF PRIVATE CONTRACTING
IN NORTH AMERICA AND INTERNATIONALLY
TO MEET PASSENGER NEEDS

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EXECUTIVE SUMMARY

Around the world, there are many different ways that public transit authorities organize and choose to deliver their daily operations to the riding public. Many contractual models have been influenced by the context, culture and history of the location. Each model has its own characteristics and advantages. In the context of this paper, several public transport organizations have been interviewed to highlight the benefits of contracting transit operations via a competitive process resulting in usage of a third party (private contractors) to operate services .

The purpose of this paper is to present best practices in terms of the scope and award process, contractual framework, and partnership relations between the parties and benefits of contracting.

CONTEXT IN NORTH AMERICA

The provision of transit services (ADA paratransit, on-demand services, and fixed route bus or rail) in North America is typically either made via a competitive request for proposal (RFP) process, directly operated by the authority or some combination of the two. According to a survey conducted by the United States Government Accountability Office (GAO), approximately 60% of transit agencies in the U.S. are contracting all or part of their operations¹. This type of model is not new, as it has been one adopted since the early days of public transport in the country.

The most common reasons behind the choice to use a contracting model, according to the same survey, include advantages such as cost reduction, partnership support in the introduction of a new service, or a general goal to improve efficiency. Other factors were also mentioned by agencies, including flexibility or higher quality service. Implementing a competitive request for proposal process also provided transit agencies with additional expertise from the market, which proves particularly useful when offering new services.

While there are many considerations to be made when implementing such a model, the procurement process might very well be the most important one as it sets the foundation on which the relation will be built. The authority should aim to establish a level of partnership needed



with the private contractor to ensure that the service provided meets passenger expectations.

This contractual agreement can never reach its full potential if both parties are not approaching this relationship as a win-win partnership in which collaboration, transparency, and the respect for the expertise of the parties are not at the basis of the management of the contract.

Best practices in the contract award process include providing a good level of transparency and communication throughout the process, and including performance incentives and monitoring tools to reach shared objectives. This also creates opportunities for advancements in innovation in service quality, safety, and customer experience, as well as stronger alignment between public/private sectors which can be made even stronger when requirements are standardized where feasible across regions, and among similar agencies.

Once the contract is awarded, managing to the Key Performance Indicators (which usually include operations, maintenance, safety, and others), utilizing collaboration mechanisms such as regular meetings (monthly or quarterly), conducting on-site inspection, and monitoring in real-time are all key components to fostering a productive and dynamic partnership. In any case, agencies typically do (and should) retain primacy over critical, complex, and strategic decisions such as fare structure.

There are three main options for arranging the delivery of public transport services: service provided in-house (without competition), service outsourced via a Request for Proposal (RFP), and service acquired in the free market. RFP efficacy can be increased when there is sufficient lead time built in to attract the most technically

¹ Transit Agencies' Use of Contracting to Provide Service, United States Government Accountability Office, 2013

proficient bidders. Supplying an adequate amount of non-proprietary data and information can also improve the quality of competition. In practice, intermediate forms can also be observed, with alternative allocations of risks and responsibilities.

EXAMPLES OF BENEFITS FROM CONTRACTING PUBLIC TRANSPORT OPERATIONS

In this study, only the RFP model is explored in detail. In this model, the remuneration and sharing of responsibilities can follow two primary pathways: gross cost contracts (service to be produced is fully specified in the agreement) and net cost contracts (service to be produced is specified in a more functional way).

Individual contexts and environment aside, there are many significant examples in the world of contracting experiences that are leading to beneficial results. In the UITP study on Contracting in Public Transport, 10 models are presented, highlighting their benefits and the different elements that define the partnership between the authority and the private contractor.

In North America, several agencies have adopted the competitive award model. For example, in California, Foothill Transit Authority is benefiting from the partnership and the experience of private contractors to improve its efficiency and the passenger experience.

‘We value the expertise that our contractors bring to the table... We strongly encourage our contractors to bring ideas, suggestions for improvement and we work together on a variety of efforts to improve the system.’

In Boston, the Massachusetts Bay Transportation Authority went beyond the contract for the provision of services and implemented a side agreement to introduce innovative on-board fare collection system and increase of revenue. The partnership between both parties allowed them to move away from the traditional, regimented procurement practice, to leave the private contractor the flexibility to implement more creative solutions in the system to the benefit of the users and the agency.

‘With the side agreement, we have definitely seen improvements in fare collection and revenue generation.’ - MBTA

The collaborative approach adopted by LA METRO led to an improvement of services offered to passengers. Through exchanges between the parties, to leverage respective experience and expertise. This collaboration led to adjustments of routes to better address the passengers’ needs and expectations. The outsourcing of the service also led a noticeably better ratio between cost and performance with private contractors (\$95-105 per hour range) than for the directly operated services (\$130-140 per hour range). With its long experience of contracting public transport operations, RTD Denver relies on a contracting model that includes clear KPIs, supported with incentives and penalties mechanisms to provide a high quality of service to their passengers.

Contracting in public transport is a model widely adopted around the world, and one system that is the often referenced is Transport for London. Since the implementation of these Quality Incentives Contracts in 2000,



the Excess Waiting Time has been reduced from approximately 2.2 minutes to about 1.1 minute. Also, during the same period, customer satisfaction was increased from 75% to 86%. All this while the service volume and usage increased substantially. The flexibility that the authority gives to the private contractors to propose changes in the service, upon approval, is resulting in an increase of efficiency.

The improvement of the quality of the service led to BC Transit, in Canada, to contract out its operations, while implementing a measurement system closely monitoring punctuality, cleanliness of the vehicles and safety compliance.

Often presented as a model for innovation in public transport, the Land Transport Authority (LTA) is the transport authority responsible for planning, developing and regulating urban transport in Singapore. The Singapore public bus industry transitioned to the Bus Contracting Model in 2016. LTA focuses on establishing a close partnership and relationship with private bus operators, which allows LTA to better understand commuter needs and obtain feedback from the operators on how services, contractual requirements or related works may be optimized and improved through frequent dialogues and engagements. For example, the benefits of the transition of the bus market can be witnessed in the significant increase in commuters' satisfaction over the years, with percentage satisfaction levels for public transport increasing from 88.5% in 2013 to 97.6% in 2020.

'Even though we are contracting partners, we do not view the relationship as transactional, but as relational, as partners serving the same people with reliable bus services.'

In Sweden, the two authorities Storstockholms Lokaltrafik (SL) and Västtrafik are often presented as models to follow when it comes to contracting. SL has increased the responsibility of the private contractor, while also counting on their field experience and internal expertise to propose planning changes in the planning to improve the service. On its side, Västtrafik is rewarding the private contractor when they meet a defined level of success on passenger's experience.

Sydney Metro has seen an increase of the services delivered withing the same budget with the renewal of their contracts. It also witnessed how the partnership approach they are developing with their private contractors led to innovation, including the deployment of large-scale on-demand services.

All the models presented above have their own history and context, which has influenced the choice of the contracting model they are implementing. They each have their own experience and benefits, but one general element stands out from the interviews conducted for this study. This is the importance of building a collaborative relation between the authority and the private contractors. This open, transparent, and result-driven partnership approach, focused on an agreed outcome, is the foundation on which the quality of the services contracted can be improve, innovation deployed, safety increased, and ensure benefits to the communities served.

Throughout the various case studies, there were different benefits of the models presented and the perceived benefits of private contracting. Among these, a reduction of excess waiting time, an increase in customer satisfaction. The authorities that participated in the report valued the field expertise and the collaborative partnership brought by the private contractors, which could allow the provision of more adapted transport services for the passengers. The cases presented highlighted that there could be value and benefits from contracting to better meet user's needs.



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SUMMARY CASE STUDIES

NORTH AMERICA

	FOOTHILL TRANSIT AUTHORITY USA	LA METRO USA	MASSACHUSETTS USA - COMMUTER RAIL AND FERRIES	DENVER RTD	BC TRANSIT, CANADA
Contract size	360 buses split over 2 contracts	180 buses split over 3 contracts	1 contract for the entire area	Approx. 150 buses	2-80 buses
Contract duration	4+1 years	5 years	8 years+4 years	3+1+1 years	9+6 years
Strategy / Service Design	Authority designs the service	Authority designs the service	Joint	Authority designs the service	Transit Authority
Operations of the Private contractor	Schedules buses and drivers	operations of the service, maintenance, and training of the staff	Schedules vehicles and operating staff	Schedules buses and drivers	Schedules buses and drivers, in some cases maintains vehicles and facilities
Bus ownership	Authority	Authority	Authority (trains and ferries)	Authority	Transit Authority
Facility ownership	Authority	With private operator	Authority	Authority	Private contractor (mostly)
Revenue risk	With authority	With authority	With authority	With authority	With authority
Cost risk	With private contractor (excludes buses, depots)	With private contractor	With private contractor (including maintenance of trains, ferries, tracks)	With private contractor	With private contractor (mostly excludes buses and depots)
KPIs, Quality, Incentives	Service provision, compliance with maintenance and compliance with HR-requirements	Service provision, customer satisfaction, accidents, maintenance	Side agreement allow innovative fare collection practices.	Service provision including punctuality (basis for penalties), mechanical failures (basis for incentives)	Punctuality, cleanliness of vehicles and safety compliance. Penalties for non-reporting.

INTERNATIONAL

	SINGAPORE	STOCKHOLM SWEDEN	SYDNEY AUSTRALIA	GOTHENBURG SWEDEN
Contract size	300-400 buses	100-160 buses	2,500 buses in operation by private contractors in Metropolitan Sydney	100 buses on average, also some very small contracts
Contract duration	5+2 years	10+2 years	7 years with options to shorten / lengthen	10 years
Strategy / Service Design	Authority designs the service	Joint	Authority designs the service (Private contractor can suggest adjustments)	Authority designs the service
Operations of the Private contractor	Schedules buses and drivers	Schedules buses and drivers	Schedules buses and drivers	Schedules buses and drivers
Bus ownership	Authority	Private contractor	Private contractor	Private contractor
Facility ownership	Authority	Private contractor	Authority (mostly)	Authority
Revenue risk	With authority	Partly with private contractor (remuneration) for passenger numbers	With authority	Partly with Private contractor (remuneration) for passenger numbers
Cost risk	With private contractor (excludes buses, depots)	With private contractor	With private contractor	With private contractor
KPIs, Quality, Incentives	Passenger satisfaction, waiting times, punctuality	Punctuality, customer satisfaction, reliability	Punctuality, driving style	High passenger satisfaction; Penalties related to cancellation of services

INTRODUCTION

Public transport vehicles are an integral part of urban landscapes. For citizens living in urban areas, they are the most effective and reliable means to access services, professional activities, and other personal occupations. For businesses, these transit networks are increasingly considered as valuable infrastructure, while for elected officials, they represent the most effective return on investment to spur economic growth, support inclusion and fight against climate change.

Often hidden behind these considerations, the more technical aspects of how the service is provided and the structure of the relationship between the authority and the private contractor is much less known.

Indeed, few are aware of who is actually operating the buses, subways, or trams. If the service is provided following a competitive process, such as a Request for Proposals (RFP), if it is awarded directly, or provided in-house.

The organization of transit operations has not followed a linear evolution and is unique from one country to another. The models differ from system to system depending on cultural and historical elements, reflecting policy choices of decision-makers. Some authorities favor in-house operations or a detailed specification of services to be provided by contractors, others allow private contractors to suggest network innovations in request for proposals, and yet others choose free-market competition. When studying the topic, one notices that some networks have changed models throughout their history, often even following societal changes.

The comparison between these different models has been studied in both academic and professional circles and a considerable effort was put in the understanding of mechanisms and success factors of each of these arrangements.

Contracting services is one of the major options. As illustrated in the following pages and through the case studies that are presented, well-balanced contracting can bring valuable benefits. Beyond efficiency and cost reduction, it can lead to an increase in productivity and better-quality management while maintaining adequate flexibility and realizing an effective usage and sharing of expertise between the contracting parties.

For the purpose of this paper, a special focus will be put on competition. More specifically, it will explore the benefits of contracting in transit. Using case studies, it will highlight some of the advantages that have been experienced in different transit networks in North America, Europe, Australia and Asia.

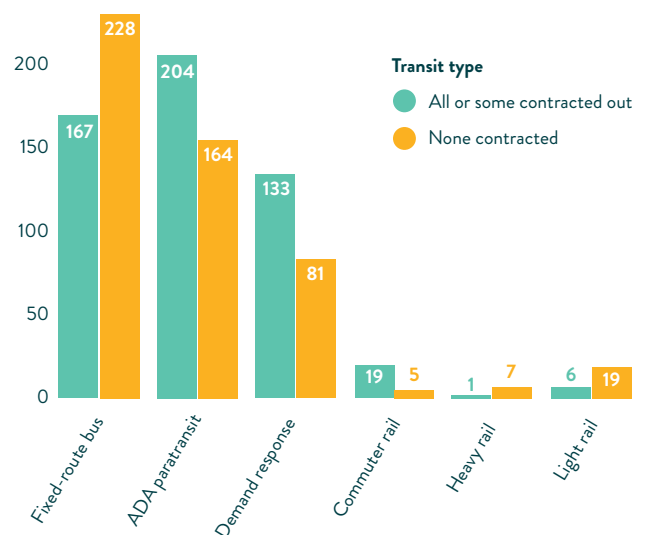
The cases presented in this report are based on interviews conducted with professionals working for the respective organizations. Their extensive contracting experience make them a valuable source of knowledge of the advantages of adopting this model, on the ways to implement it properly to contribute to better meet passengers' expectations and needs.

CONTEXT: CONTRACTING TRANSIT OPERATIONS IN NORTH AMERICA

Contractual models are diverse, the variations being influenced by the context, the culture, and the history of the location where they are implemented.

In North America, the contracted provision of public transport services is either made via direct award or a competitive request for proposal (RFP) process, and the oversight is assured by the Federal Transit Administration (FTA). These services are provided by private contractors, of all sizes, which are delivering one or more of the following services: ADA paratransit², on-demand responsive services, and fixed route bus or (heavy or light) rail services.

According to a survey conducted by the United States Government Accountability Office (GAO), around 60% of transit agencies are contracting out some of their operations³, most of these being for ADA paratransit services, but fixed route bus services are also outsourced.



This is not a new trend in North America, as transit operations in their early days were contracted out⁴, up until the end of the second World War, when the service went to the public sector, mostly because of financial issues. Outsourcing was encouraged again in the 1980's, as the private-public partnerships on the operations became more frequent following the reduction of funding by the Federal government⁵ and a 50% decrease in ridership. This trend towards contracting was further confirmed a decade later by the adoption of the Americans with Disabilities Act in 1990, which required the provision of paratransit services by agencies that provide fixed-route services⁶.

The reasons to choose this model differed depending, among other elements, on the mode at stake, but some common perceived advantages for the agencies are standing out, such as cost reduction, introduction of a new service or a general goal to improve efficiency.

Other factors have been mentioned by agencies, including flexibility or higher quality service. Implementing a competitive request for proposal process also provided transit agencies with additional expertise from the market, which proved particularly useful when offering new services⁷.

The distribution of risks, including the ownership of the vehicles or of the facilities can also be considered a factor in contracting. This an important concern for many agencies as more than half of the agencies that contract in the US own the vehicles⁸. Although, this is increasing their need for capital, which can be secured via federal funding, it gives agencies more long-term flexibility. The table below is an example of a typical distribution of risks in the US between agencies and the private contractors⁹.

Depending on the contractual agreement, there are many examples in the US in which the agency also helps in reducing the level of risk of the private contractor by providing assistance with fuel or other supplies. The compensation for the service provided is based on a rate per unit of services (fixed fee)¹⁰, usually for a period ranging from three to five years.

While considering the implementation of a contracting model, the agencies must comply with both state and federal laws. Among those, the Federal 13(c) regulations have an impact on the working conditions of employees that were present before the outsourcing, thus preserving their benefits and rights in the transition toward a new private contractor.

	Public Operations	Operations & Maintenance Partnership	Public-private Operating Partnership
Budgetary policies	Green	Green	Green
Service & fare policies	Green	Green	Green
Capital plan	Green	Green	Green
General management	Green	Green	Red
Technical advisor	Green	Green	Red
Finance and grants	Green	Green	Red
Marketing	Green	Green	Red
Planning & scheduling	Green	Green	Red
Purchasing	Green	Green	Red
Fare collection	Green	Red	Red
Risk management	Green	Red	Red
Operations	Green	Red	Red
Maintenance	Green	Red	Red
Training	Green	Red	Red
Safety	Green	Red	Red

Source : Transdev North America

Concretely, it implies that the contract between the agency and the private contractor must include the following¹¹:

- The preservation of rights, privileges, and benefits (including continuation of pension rights and benefits) under existing collective bargaining agreements or otherwise;
- The continuation of collective bargaining rights;
- The protection of individual employees against a worsening of their positions related to employment;
- Assurances of employment to employees of acquired public transportation systems;
- Assurances of priority of reemployment of employees whose employment is ended or who are laid off; and
- Paid training or retraining programs.

This regulation and the compliance by agencies provide reasonable guarantees for the Unions and the employees that the new contractor will not reduce costs at the expense of the employees' rights.

The procurement process is one of the most important aspects of contracting as it sets the foundation on which the relationship will be built at the later stage, to eventually reach the level of partnership needed between the agency and the private contractor to ensure that the service provided to the passengers meets their expectations.

2 Americans with Disabilities Act (ADA) of 1990 • 3 Transit Agencies' Use of Contracting to Provide Service, United States Government Accountability Office, 2013 • 4 Public Transportation in the U.S.: History and Current Status, Louis Thompson March 17, 2008 • 5 Contracting for public transit services in the US: Evaluating the Tradeoffs, Privatisation and regulation of Urban Transit Systems, OECD 2008 • 6 Americans with Disabilities Act (ADA) of 1990 • 7 Methods for Allocating Contracts for the provision of Regional and local Transportation Services, OECD, 2013 • 8 Transit Agencies' Use of Contracting to Provide Service, United States Government Accountability Office, 2013 • 9 Transdev • 10 Analysis of Transit Contracting Models and Proper Incentives for long-term success, NCTR, 2013 • 11 49 U.S. Code § 5333 - Labor standards

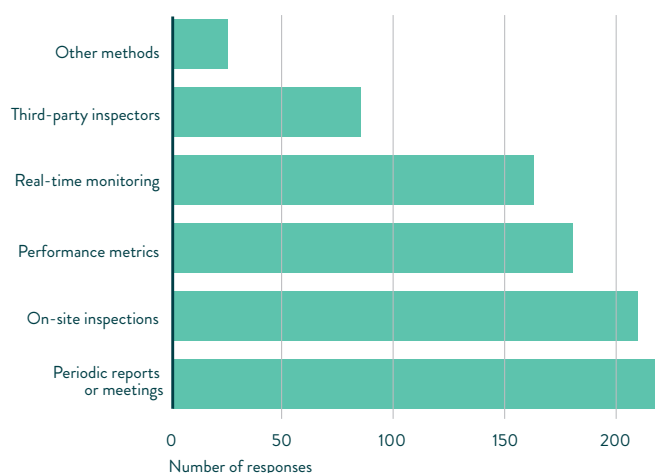
This contractual agreement can never reach its full potential if both parties are not approaching this relationship as a win-win partnership in which collaboration, transparency and the respect for the expertise of the parties are not at the basis of the management of the contract.

The process itself varies from one agency to another, but in general it includes a request for proposals based on the objectives defined by the agency, followed by rounds of discussions in which the agency can ask bidders for clarification on their proposals and a decision is made based on various factors including price and quality.

Other criteria, such as expertise, experience or innovation can also be considered. The level of transparency of the process is often seen by the experts as a key element to ensure that the process remains fair and reaches an optimal result. Some examples of this are presented in the case studies of this report.

Included in the contract, incentives and related performance measures are used to ensure that the ongoing provision of services is following the objectives set in the call for bids. Incentives and monitoring schemes are also used in some agreements to create opportunities for partnership, stimulating innovation and bringing unplanned improvements to the operations. These metrics may include quality of service, customer experience, safety scores and more.

Sealing a contract and defining evaluation tools are insufficient to develop a strong and dynamic partnership between the parties. For this reason, but also for reporting purposes, a clear contract management process and a clear set of regular activities are organized to facilitate collaboration. In the US, these are taking the form of periodic meetings (often monthly or quarterly), on-site inspection, and real-time monitoring¹².



Contracting public transport services in the US has been conducted with success for decades, with an increasing number of contracts being granted with a variety of specificities depending on the contracts, the modes, the past experiences, etc. The following chapters will present concrete examples of outsourced services in America, highlighting best practices and lessons from agencies and private contractors.

‘COMPETITION’ AS A WAY TO REGULATE THE PROVISION OF PUBLIC TRANSPORT

This section will briefly present the different models, as well as some defining characteristics of each. These models can be used as guidelines to better understand the aspects presented in the case studies.

It is important to start by describing further the three main options for arranging the provision of public transport services that can be distinguished, namely:

- In-house (without competition)- model where many municipal operations globally are organized this way, with the provision of transit services being provided by employees of the city or transit agency. In the absence of a competitive environment such public sector arrangements require other incentivizing factors to ensure, maintain and increase efficiency in the provision of services.
- Outsource - Service provision ‘ordered’ by model where transportation authorities via enter into a competitive process in which private contractors compete in a formal request for proposal procedure for public transport contracts (‘service contracts’, ‘concessions’ or ‘franchises’) entitling them to a temporary and often exclusive right to operate the services covered by the contract.
- Free market – model in which private contractors are free to provide whatever services they perceive to be commercially profitable. Other services, that might be desirable from a social point of view will generally only appear if directly contracted, subsidized or provided by authorities.

The second option has been increasingly used in Europe, Australia, Asia but also in North America, as mentioned previously, and South America, with the clear intention to improve efficiency, customer focus and experience, and innovation in the sector.

Several decisions have to be made before passenger transport services can actually be provided to the public,

¹² Transit Agencies’ Use of Contracting to Provide Service, United States Government Accountability Office, 2013

and this is true whatever the organizational model (in-house, outsource, or even free market models). These decisions are hierarchically ordered and differentiate themselves according to the scope of the planning issues addressed and the planning horizon, as indicated in the table below.

DECISION LEVEL	GENERAL DESCRIPTION	DECISION	
		"Software"	"Hardware"
STRATEGIC	<i>What do we want to achieve?</i>	GENERAL GOALS	
		Transport policy Market share Profitability	
TACTICAL	<i>Which services can help to achieve these aims?</i>	GENERAL SERVICE CHARACTERISTICS	
		Areas Target groups Intermodality	
OPERATIONAL	<i>How to produce these services?</i>	DETAILED SERVICE CHARACTERISTICS	
		Fares Image Additional services	Vehicles Routes Timetable
OPERATIONAL	<i>How to produce these services?</i>	SALES	PRODUCTION
		Selling activities Information to the public	Infrastructure management Vehicle rostering and maint. Personnel rostering and mnngt

Source: Didier Van de Velde, Inno-V

As presented in the table, the strategic decision level is involved in the formulation of long-term general aims, such as the transport policy, the intended market share or modal split, the level of public financing available, and in the determination of the general service characteristics. This strategic level is often kept in the hands of elected representatives and at the level of the board of transportation authorities.

On the tactical decision level, the long-term strategic aims are translated into the actual ‘design’ of the services. We find here both ‘traditional’ parameters such as the definition of routes and vehicles, but also ‘softer’ aspects such as the image of the services. This level of decision can be shared between authorities and private contractors depending on the partition of responsibilities. Private contractors can and should be expected to advise authorities on the best course of action, but ultimately any decisions are reserved for the authorities themselves.

The operational level translates the planned supply into actual services. This includes the management of sales and production. This level of decision is usually located within the private contractors, but can also be shared with transit agencies planning services. The level of decision is also dependent on the question at hand. For instance, in the case of Life Cycle Asset Management,

decision-making lies with the authority, but the private contractor can be reasonably expected to offer accountable advice.

The services procured within a competitive request for proposal regime are typically based upon a transport policy document established by the local or regional transport authority, which embodies the main transport policy aims and a more or less detailed sketch of the expected public transport services.

The development of this document is often handled by a specialized authority body or company owned by the political authority that ultimately ratifies the proposed plan.

Routes, bundles, or network areas are put out to contract under a list of service obligations, specific arrangements with respect to remunerating the Private contractor, service design, requirements related to staff, vehicles and quality management, etc.

In competition-based regimes, potential private contractors submit proposals and an evaluation procedure is used to award the contract to the ‘best’ bidder. The awarding model is typically based on price and/or several quality criteria. A variety of request for proposal procedures exists, such as with/without pre-selection and with/without negotiations.

The contract between the private contractor and the transport authority describes the ways of remunerating the private contractor (cost, revenues, and parameters) and clauses describing the service to be produced. Here, two tendencies can be observed:

- Gross cost contracts in which the service to be produced is fully specified as per the sum, the services to be provided and the period
- Net cost contracts in which the service to be produced (routes, timetables, vehicles) can also be specified in a more functional way by the contracting agency, and where the risk on ticket revenues is the responsibility of the contracted private contractor

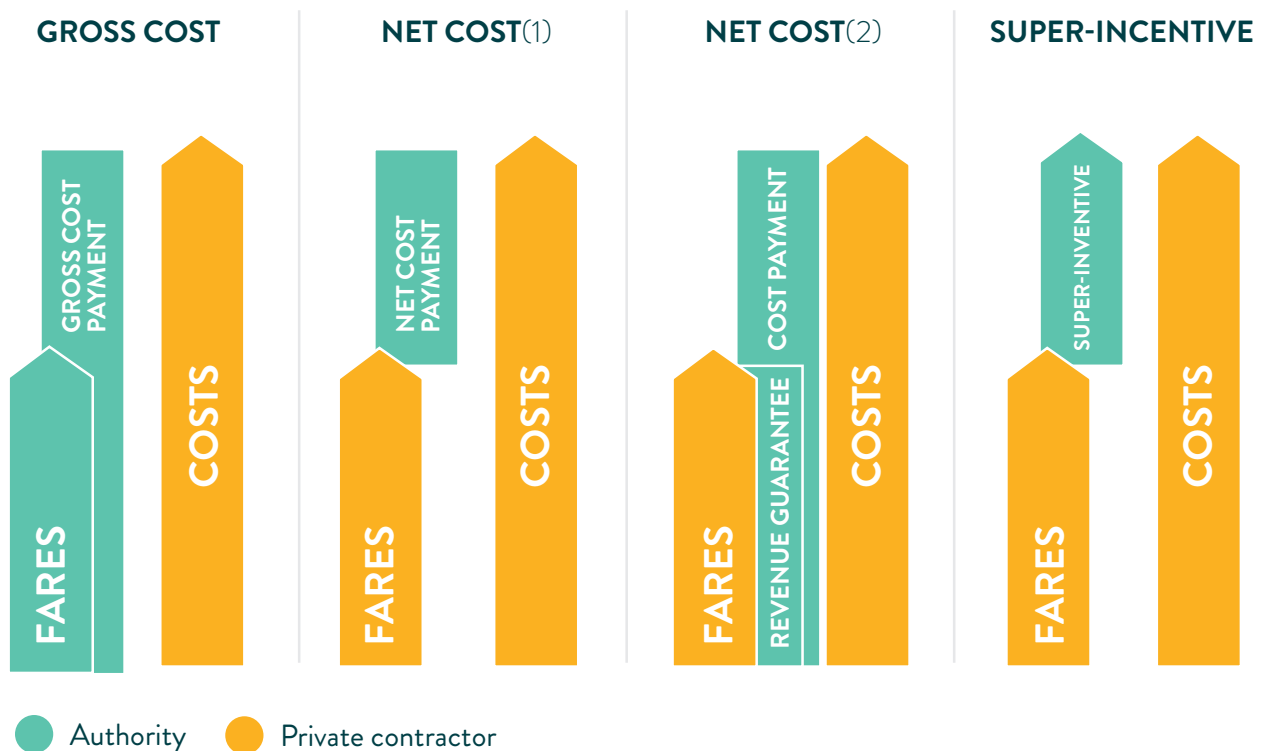
In practice, intermediate forms can also be observed, with alternative allocations of risks and responsibilities, alternative ways to allocate service redesign powers to the contracting parties and alternative ways to organize their cooperation during the contract period.

The first tendency of competitively tendered contracts came to be known in Europe as the ‘Scandinavian model’, even though this regime was actually based upon the London bus request for proposal procedure as introduced in 1984, as presented below. Examples of this model are also present in Denmark, Sweden, Norway, and to a lesser extent in Germany. Contracts tend to be small in size (one or a few bus routes), although some can be larger, and vary from short (approximately five years) to a duration linked to vehicle amortization.

The private contractor, who is charged with providing the services as specified, usually assumes the production cost risk, but not the ticket revenue risk, which is borne by the transport authority. The service design lies with the authority, which tightly determines the services prior to launching the request for proposal, as routes, frequencies, fares, and vehicle appearance are fixed. Operational quality incentives (such as punctuality incentives or penalties) are usually included in the contract.

The second tendency, which can be observed on a large scale in France and the Netherlands, is based on larger contracts (usually whole networks) where the private contractor is given both the production cost and ticket revenue risks in so-called net-cost contracts that can be longer (often 10 or more years when the private contractor owns the fleet), and in which the private contractor is responsible for both operational and tactical activities. The private contractor is usually asked to suggest innovations or options during both the request for proposal procedure and contract realization. Incentive regimes are often included in the contracts to increase the incentive for private contractors to develop and implement innovations that will increase ridership and/or reduce costs.

In addition to the net or gross contract models described above, various more complicated remuneration schemes also exist, such as those including shared-risk provisions or super-incentives on top of fare revenues.



Source: Didier Van de Velde, Inno-V

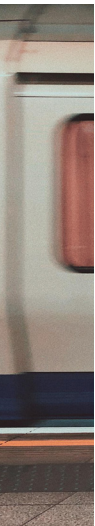
Contracts in which the service design is fully specified by the authority both during request for proposal and during the contract are widely used and tend to be rather stable over time (London is a good example).

In the alternative contracting approach authorities involve private contractors in the definition of the service (during either the request for proposal and/or during the contract), within the limits given by the call documents. Such arrangements tend to be more challenging to organize and thus less widely used. Further variations on this contractual theme include negotiated arrangements (at the awarding stage) or arrangements in which authority and private contractor work together in partnership in joint development teams during the contract period.

The level of detail with which transport authorities need to specify the requirements related to services, staff and vehicles, their quality management and monitoring differ according to the general contracting choices made. Contracts will differ substantially in the way quality management and monitoring is organized, all according to the general contracting approach chosen.

In typical small-scale bus contracts, assets such as buses and garages are often the responsibility of, and are provided by, the private contractor as part of the con-

tract. Often, the authority will specify minimum vehicle requirements such as on-board facilities and emission standards. In larger, more complex concessions, authorities can also make assets available to the private contractors or include contractual clauses that organize the transfer of rolling stock between private contractors at the end of a contract period. This is particularly common in rail-based concessions with assets (such as trams and metros) with contractual lifespans that greatly exceed the typical contract period.



MAKING COMPETITION WORK IN PRACTICE

The table below lists some typical pros and cons of both net cost functional contracts and gross cost specified contracts:

	NET COST FUNCTIONAL CONTRACTS	GROSS COST SPECIFIED CONTRACTS
PROS	<ul style="list-style-type: none"> • Authorities can leverage the knowledge of the contractor (market development, service design, ...) • More opportunities for innovation, new ideas arising from competing bids from contractors • Improved alignment between public and private sector objectives, resulting in stronger partnership and maximizing benefit to community • Additional funding possible in cases where ridership and demand influence formulas 	<ul style="list-style-type: none"> • Net contract subsidy reductions due to focus on increased production efficiency • Changes to the services can easily be ordered by the authority during the contract • Lower impact of external shocks (with revenue implications) on the private contractor
CONS	<ul style="list-style-type: none"> • Requires active engagement from all involved (adequate contract management) • Can result in a tendency towards over-specification over time, in cases where previous contracting experiences led to disappointments 	<ul style="list-style-type: none"> • Potentially too much focus on cost cutting • Suboptimal use of the innovation potential of the private contractor (not involved at the tactical level)

The extent to which these can be observed in practice and their impact gives rise to debate among and between supporters and opponents of both forms of contracting. Our observation is that what matters most is the adequacy of the chosen form of competition and contractual details to suit the situation at hand: the network and services, authority objectives and resources, skills of the private contractors on the local market, etc.

Another element that needs to be considered here is the benefit of effective collaboration and the building of trust and partnerships between authorities and private contractors. In this respect, building partnerships between stakeholders can, through open dialog, responsiveness and learning from each other, allow improving public transport services, while reducing the need to draw up fully specified contracts to account for all kinds of (unforeseen or unforeseeable) developments¹³.

As the models have been more clearly presented, including their particularities, the following section will present concrete examples of contracting relationship between public transport authorities and private contractors. Through these case studies, the specificities of each arrangements will be presented, but also the benefits will be highlighted as accurately as they have been explained by the professionals that have been interviewed in this paper.

NORTH AMERICA CASE STUDIES

FOOTHILL TRANSIT AUTHORITY

Foothill Transit Authority is a Joint Powers Authority of 22 member cities and the County of Los Angeles. It was set up in order to break away from L.A. Metro and to ensure a clear focus on the specific regional needs for transit services for citizens of their service area.

A key initial objective for the authority was to contract as much as possible to private service providers so they could benefit from contractor expertise and know-how, while still ensuring that the public sector and local decision-makers remained in charge.

From the set-up of the authority in 1985 through 2013, all activities were contracted to private parties – with a fixed fee management contract for administrative oversight and several gross-cost contracts for transport operation.

This oversight contract was redefined and separated in 2013 in order to define a clearer split of responsibilities between public sector and private actors. All activities



related to procurement, financing, contracting, planning, contract oversight, and marketing were transferred to the transport authority itself.

Today, Foothill Transit Authority runs two operating contracts for the area. The entire operation comprises a fleet of 363 buses.

Beyond this, the authority is responsible for a smaller contract for customer service and bus stop signage. The duration of operating contracts within Foothill Transit Authority varied during the past years. However, the current contracts have a duration of 4 years with an option for an additional 5 years. Foothill Transit is considering changing this framework for a fixed 5-year contract without options, as the financial landscape is changing fast and this change might be fairer for the private entity.

In the model implemented, Foothill Transit Authority provides the operational assets needed to deliver the required services. Contractors usually take over the operating staff from the previous contract owners, but the management team would be new.

Contract awarding is organized as a negotiated procedure that could have several rounds, where discussions focus on the financial proposal, proposed leadership staff, the work plan to organize the services and the delivery aspect. Quality, expertise and the plan for service delivery are key aspects considered in the evaluation of bids. The financial proposal accounts for only 25% of evaluation score.

¹³ See, e.g., Robert Hrelja, Tom Rye and Caroline Mullen (2018), Partnerships between operators and public transport authorities. Working practices in relational contracting and collaborative partnerships, in: Transportation Research Part A Volume 116, October 2018, Pages 327-338

A number of Key Performance Indicators (KPI) have been defined to assess and monitor the quality of performance, including:

- bus cleanliness and private contractor appearance,
- on-time performance,
- compliance with maintenance requirements,
- compliance with HR requirements

Foothill Transit Authority has a strategy to implement innovation and make public transport more sustainable, through initiatives such as the deployment of clean vehicles. Consequently, the capability of bidders to manage new technologies is also considered in the contract awards.

As mentioned, the contractors need to submit a plan to explain how they will support and implement the planned innovation projects. They also need to bring references proving how they did similar things in other places, as a guarantee that they can deliver what will be requested of them.

In order to protect employees in case of a contract transition, new contractors score evaluation points if they commit to take over the existing staff, which is usually the case.

Foothill Transit Authority owns all facilities and vehicles necessary for service delivery. Given the real market situation in the operating area this set-up is seen as appropriate to meet all requirements that come with public funding. As a result, private contractors do not need to worry about finding maintenance facilities and bids can be purely evaluated on operational expertise.

Operational contracts follow a gross-cost model with network design, revenue risk and contract oversight always sitting with the authority. The private contractor risk is limited to employee risk with legal requirements, training, etc. This allows the private contractors to fully focus on optimizing service production.

The global expertise that private contractors bring into the local operation is considered an asset, especially for smaller and medium-sized operations.

Contractors are encouraged to bring ideas to improve service quality and efficiency. While the authority sets the ambition and decides about innovation, they try to benefit from the know-how of private contractors, as they are bringing in ideas, tools and expertise from operations elsewhere.

Foothill Transit Authority aims for a partnership approach, encouraging contractors to actively contribute to service improvements.

While operating contracts include penalties and incentives, the overall objective is ensuring quality of service.

Authority and contractors have regular meetings. Performance is continuously monitored by a contract quality assurance team, assessing operational service delivery, maintenance compliance and staff performance. Planned changes to the public transport service, such as timetable amendments, are discussed to get a clear view of benefits and implications.

Foothill Transit Authority sees a clear separation of responsibilities between day-to-day operational management and political decision making as a key advantage of contracting transit services. Starting out with the oversight contract also brought the advantage that authority key staff understands the contractor's perspective.

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

The case of the Massachusetts Bay Transportation Authority (MBTA) is different from the other presented in this report, as the two services that are contracted out are commuter rail and ferries, the rest of the operations remaining in-house. The commuter rail service has never been provided by MBTA in-house and was always outsourced, first the commuter rail was part of Amtrak, before a private coalition called Mass Bay Commuter Rail took over the services in 2002.

So far each time one of the contracts came due for re-bidding, the MBTA conducted an internal analysis to consider the relative merits of outsourcing and insourcing. Yet, the MBTA always concluded that contracting services remained more beneficial.

The MBTA is using a request for proposal process, to which usually few eligible bidders participate. The calls include the provision of services, but also the maintenance of the tracks and vehicles. The infrastructures are in large part owned by the Commonwealth of Massachusetts and the rolling stock is owned by the MBTA. Internal analyses were conducted to evaluate the possibility of unbundling the contract, but the advantages were not convincing enough to do so.

In the current contract, timetables are approved by the MBTA, the maintenance standards are fixed by the MBTA, which is also quite prescriptive about the spare parts and the infrastructure maintenance.



The private contractor is paid a fixed fee, which is included in the bid. The private contractor bears no commercial risk on ticket revenues. The MBTA also contracts out to the private contractor, as well as to some other contractors, the implementation of capital projects to the benefits of both partners.

The MBTA is aiming at building a collaborative partnership with the private contractor, and to reach that, the contract clearly includes disputes resolving mechanisms. While some penalties are automated, a joint panel deals with issues, which are often negotiated between the parties.

Transit services are seen in the Boston area as a very important topic for residents. When the network gets criticized, for delays for examples, it immediately draws the attention of elected representatives, which then turn to the transit authority which has to bear the pressure. In the case of the MBTA, and under the current partnership, the private contractor is supportive to take the blame. This proves to be a benefit in an environment in which transit is often under public scrutiny and elected officials may otherwise be held accountable for events beyond their direct control.

One interesting element of the partnership between the MBTA and the private contractor is the implementation of an innovative side agreement, that is not part of the contract for the provision of services. This agreement includes a suite of revenue generating activities, such as the installation of automatic fare collection systems at the gates in the hub stations. It also includes some marketing activities, innovative fare collection and monitoring practices in exchange for a percentage of revenue. This percentage is considered by the MBTA as being significant enough to be used to incentivize those specific activities as included in the agreement. However, it is considered that this could not be used as an incentivization mechanism for the provision of the services themselves.

The reason behind the choice of implementing this new agreement, which was not included in the RFP, lays in the discussion between the MBTA and the private contractor to develop tools to be introduced as a way of improving the main contract early in the relationship.

It is believed that this side agreement has led to an increase in fare collection, as well as in revenue generation. Fare evasion and fare non-collection was perceived by the MBTA as an important problem, often being in the local news. The incentives agreed brought the benefit to directly address this challenge, as the private contractor improved its marketing of the network and increased its verifications of the tickets.



This agreement also catalyzed innovation. Previously, tickets bought inside the train could be paid by cash only. As a result of the agreement, handheld electronic devices were given to conductors which increased the safety of conductors by reducing the chance of conflict between a riders and private contractors. The private contractor also made it a performance issue for the conductors of the vehicles to collect fares, evaluated according to the data provided by the electronic device.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

The Los Angeles County Metropolitan Transportation Authority (Metro) is the agency responsible for the planning of the public transport services in Los Angeles County. Concretely, it designs the routes and defines the planning, as well as provides the funding for the operations. In addition to these responsibilities, usually owned by authorities, the services of the Subway system, light rail network, bus routes are operated in-house. The buses routes are however not all operated by LA Metro, as it contracts out three sections of its network to different private contractors.

Only a small portion of Metro's network is operated by private agencies, as the competition for bus routes was only considered for new routes, so all the existing routes have remained operated by Metro. The outsourcing of the service was introduced to reduce the costs, improve the service, and increase the ridership in low density or underserved areas of the region. One tangible outcome of the outsourcing was noticed in the disparity between cost and performance between the directly operated and contracted service. While the average contractor hourly rate was approximately around \$95-105 per hour range,

the directly operated rate was closer to \$130-140. The area of bus cleanliness also experienced similar disparities.

The three contracts, which cover three sections of the network are divided geographically and include a total of 181 buses. The contracts are structured similarly, as they include operations of the service, maintenance, and training of the staff, for which the private contractors are compensated on an agreed fee for the service-hours. They are valid for a period of five years.

In this model, the authority owns the vehicles, a decision which has changed throughout the years and which aims at ensuring that the private contractors use the same model of buses and provide the passengers with a similar experience no matter where they are on the network. The depots are owned by the private contractor.

The awarding process implemented by Metro is composed of several steps, which starts at the end of the previous contract. Indeed, the new RFP is drafted while integrating the lessons learned from the experience. This iteration allows the competitive process itself to be a source for improvement by experience.

Once the RFP is drafted, it is shared with the qualified private contractors so that they can evaluate their interest, but also prepare specific questions about the description of the service presented in the document. Following this informative step, Metro organizes a conference to briefly present the content of the RFP and more specifically the service to be operated as well as the expectations from the authority. Metro is ensuring a common level of transparency by communicating all the answers to the questions it will have received in these first steps to all the interested parties.

Once the conference is held and the answers are communicated, Metro officially publishes the RFP for the private contractor to submit their proposal. The evaluation process is led internally by Metro, as a selection committee is established, composed mainly of internal experts, but also of a representative from another authority. The evaluation of the bids is made primarily on the quality of the services that are proposed by the potential operations, then the price of the bid is considered.

During the selection process, a site visit is organized with the bidders and interviews with the management team of the private contractors are also conducted. Each area of the bid receives a score that accounts for the experience of the private contractor, the candidacy of the best qualifier, and the amount of the bid. This score (and recommendation) is presented to their Board, which gives the final approval.

If the best qualifier is not in the price range expected by Metro, then this bidder is asked to re-submit a new price offer, but if the price remains out of range, the candidacy of the second-best bidder is presented to the board for approval.

The winning candidate cannot be a private contractor that already is providing services on another area of the LA Metro network. This restriction is considered important for the authority, as it was meant to protect the citizens from a drastic cut of service in more than one area if something were to happen with the contractual agreement. Indeed, it is possible, in an extreme case, for LA Metro to terminate a contract following a serious breach of contract and the rule prevents a complete shutdown of operations in more than one area.

Once the contract is awarded, there is a transition period of one year, which gives time for the private contractor to carry out the groundwork necessary to begin the operations. During the implementation of the contract, the authority and the private contractor rely on a relationship of collaboration, with monthly meetings being held to discuss concerns and alternative options. During these meetings, the private contractor can share its experience on the field and propose change to the routes to improve the service for passengers, suggestions that need to be considered and approved by Metro before they are applied. This exchange of views and close collaboration between the field experience of the private contractor on one hand and the long-term policy vision of the authority on the other, allows the passengers to benefit from a structured and coherent improvement of their transit services.



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Metro can also request a change of service, for which the private contractor can answer with the variation of cost it implies. If the changes require new buses, Metro will provide the buses and if the changes are so important that they require new garages, a negotiation on new compensation by Metro will follow. These updated routes can also lead to a change of fee in service-hours following a pre-defined scale included in the main contract.

The conduct of the operations is closely monitored through Key Performance Indicators (KPIs) that are used to establish common objectives for the benefits of the passengers, but which can also trigger penalties if they are not met. These KPIs cover a wide range of fields linked to the operations, such as

- In service on-time performance
- Early departures on-time performance
- Service-hours without repairs
- Cleanliness
- Customer behavior (complaints and ridership)
- Preventable collisions
- Farebox reconciliations

Throughout the implementation of the contract Los Angeles Metro is relying on these indicators, but also to its close collaboration with the private contractor, each party having their respective expertise and roles, to improve the network and the service provided to passengers. Comparisons from the KPIs are showing that these three contracted areas have resulted in better performance and lower cost of production.

REGIONAL TRANSPORTATION DISTRICT (RTD) DENVER

RTD Denver is the regional transport agency in charge of bus and rail services for 8 counties in Colorado, covering an area of about 2400 square miles. Public bus transport services include fixed routes and paratransit services. Before COVID-19, the entire fleet comprised about 1100 buses in daily operation.

Of all the bus services with fixed routes, about 50% is contracted, the rest is directly operated. Paratransit services are entirely contracted to private service providers as is the call center.

With its long experience of contracting public transport operations, RTD Denver is relying on a contracting model of contract that includes clear KPIs, supported with incentives and penalties mechanisms to provide a high quality of service to their passengers. Denver RTD also

has a legislatively mandated requirement that a portion of its network transport services be contracted out to afford it these benefits.

The reason for such a distribution is historic and political, as a Colorado State Law requires a minimum of 50% of public transport services to be outsourced, up to a maximum of 58%. The reason behind the willingness to contract parts of the services was to benefit from an economy of scale, but also because the private sector law is more flexible when it comes to labor conditions.

For fixed route bus operations, there are currently 4 running contracts with about 150 buses in each lot, which is considered by RTD to be the optimal size to be contracted for their network. The distribution of lots is made in a way in which some overlap can exist between different providers on the same route.

In the case of RTD, the authority owns the buses for economic reasons. It also provides the bus garages. With the authority benefiting from 80% federal subsidy when purchasing buses, it is perceived that transit operation would be much more expensive if private contractors had to acquire the fleet. The authority also deploys street supervisors that monitor transit services jointly for all stakeholders.

The private contractors own or lease the facilities. The 4 contracted operations share a centralized dispatch coordinating and supporting all operations.

The duration of current contracts is set to 3 years with an option of two extensions for one year each. This limit has been set due to economic volatility to limit the risk for both sides. Also, RTD favors shorter contracts to keep competition alive.

RTD is setting the operational requirements in the Request for Proposals, which is sent to registered suppliers but also published and which remains open for a period of 90 days. The authority organizes a pre-bid conference open to any interested party to allow them to ask questions and have a better understanding of the framework.

One interesting particularity in the contracting mode of RTD is that they require all request for exceptions to be submitted - concerning pension schemes, insurance coverage, and other requested exceptions. These requests are evaluated by the legal department and decided before the deadline. Any response and exception granted is communicated to all.

Once the process is completed, the proposals are evaluated by a mixed qualification team inside the authority, following standard defined criteria, a short list is built, and recommendations are presented to the board.

Negotiations for a best and final offer are normally done with the top bidder. If there were to be very close proposals, a negotiation process between the parties is launched to reach a final decision on which contractor should be awarded the agreement.

RTD has defined several indicators to select the best proposals, but also to ensure the monitoring of the performance once the contract is awarded. These include the following indicators:

- On time performance
- Miles between roadcalls
- Mechanical failures

The financial part of the proposal is evaluated following a very detailed breakdown of fixed and variable costs to understand the differences between the proposals. A key aspect considered is the composition of the management team to ensure that it provides the requisite qualifications and expertise.

The contract between the parties includes a clause that will require a renegotiation if service ordering during the contract passes a certain threshold (10% of service hours). Such renegotiation was for instance needed due to the overall service reduction during the COVID-19 pandemic and it sets the ground for a good partnership, as it protects both parties in times of difficulties.

Contracts include penalties (liquidated damages) and incentives, with penalties mainly aiming to ensure service quality and incentives mainly encouraging better maintenance. These provisions have been introduced taking into account best practices identified by a benchmark research from independent organizations.

Contractor compliance is continuously monitored, as RTD has set up a central vehicle maintenance system available to all contractors to ensure overall cost efficiency.

In addition, RTD is contracting an independent inspection company to carry out regular vehicle and facility inspections to ensure operational safety.

To ensure the good collaboration and to maintain a strong communication channel, quarterly meetings are organized with private contractors to discuss compliance following reporting standards as defined by the FTA. With an on-time performance of 87.3%, above the goal set, this good communication between the parties is key to ensure the best services for the passengers¹⁴.

These meetings are important as, while RTD defines the routes and services to be delivered, as well as services need to be delivered, it is up to the private contractors

to organize it in the most efficient way. To reach this objective of efficiency, the authority supports private contractors for improvement and especially investment in quality. Between 2006 and 2019, the annual transit boardings increased by 21.5%¹⁵, part of this increase could be link, among other elements to this collaboration between the parties.

As another important aspect of the partnership, the authority actively involves contractors in discussions of new rules and corresponding staff training, for example on-board handling of strollers. As an overall policy, RTD's goal is that passengers do not experience any difference in service whether staff operators are employed by the private contractor or directly by RTD.

RTD considers that contracting transport services does come with economic advantage, as private organizations are often larger than the local operations, which provides an economy of scale for overhead, such as payroll.

Also, the higher flexibility in labor conditions for the private sector is considered to be a valuable benefit. Private sector rules are more flexible including working time regulations, which allow split shifts as an example.

RTD is considering that there is room for improvement, notably in implementing more incentive aspects into operating contracts, thereby hoping to encourage private contractors to contribute even more of their expertise into the overall improvement of service quality and efficiency.



14 & 15 https://www.rtd-denver.com/sites/default/files/files/2020-10/Quality-of-Life-Report_2020.pdf

BC TRANSIT - CANADA

BC Transit is the public transport authority responsible for 88 transit systems in 130 communities across British Columbia (outside of Greater Vancouver). It plays a coordinating role to ensure efficient public transport services for all communities in a large and in parts sparsely inhabited region.

In total, the public transport system comprises about 1000 buses and involves 16 private contractors. The contract size varies widely for the largest with 80 buses to smaller one that only operate 2 buses.

BC Transit is in charge of overall planning and scheduling, aiming to ensure efficiency of the systems. The authority also monitors the regional development and maintains a strategic plan estimating land use development, population growth, etc.

In general, contracts are organized based on operating areas, this could be a city or town, or a regional district in more sparsely populated areas.

It is the authority's ambition to organize the market, to benefit from the expertise of larger private contractors.

Besides regular bus lines, there are also small not-for-profit operations supported by local municipalities and bus services supported by health care services providing access to health care facilities for residents in small remote communities. To achieve more long-term sustainability in contracts and to improve efficiency in operations and management, BC Transit aims where possible to combine small systems to achieve a more regional approach and providers operating larger networks. BC Transit may discuss and suggest earlier termination or amendment of a contract in order to integrate smaller contract into the regional model.

The usual duration for operating contracts is 9 years plus options for maximum 6 years extension. This duration has been chosen as the tendering effort is quite high given the small size of most contracts.

The Request for Proposals procedure involves some clarification steps to ensure a clear understanding of service requirements. While this is no problem with regular bidders, it seems that newcomers in the market sometimes struggle to understand requirements.

BC Transit considers reviewing the tender process to include more steps to better explain expectations with the aim to encourage new interested parties and keep a lively competition.

The evaluation of bids is based on 50% quality and 50% price. The general quality monitoring of contracts includes punctuality, cleanliness of the vehicles and safety



compliance, where vehicle maintenance is a key safety criterion. To monitor customer satisfaction in a coherent way, BC Transit regularly carries out customer surveys. These are organized centrally to get a coherent response across all services. The authority has a standardized vehicle inspection model, they have inspectors monitoring the maintenance program and state of vehicle.

BC Transit owns all buses and provides them to the private contractors under a vehicle lease agreement, which is necessary for insurance. Private contractors normally provide depot facilities, but in some cases also depots are leased, aiming to lower the entry barrier for newcomers.

In terms of labor conditions, since about two years, succession rights have been implemented by the government of British Columbia, the Canadian province in which BC Transit operates, the new private contractors must accept existing labor agreements and employees.

Depending on the contract size, private contractors may only be in charge of providing transport services and drivers, or the agreement includes the responsibility for maintenance of vehicles and facilities as well.

There are currently no specific quality incentives in the contracts. The only penalty rule stipulated concerns non-reporting. BC Transit is looking into options to introduce incentives and penalties.

Private contractors providing services for BC Transit are encouraged to engage in the overall improvement of services, but so far, most initiatives sit with BC and the municipalities.

The current 9-year-contract include planned fee increases, which are discussed every 3 years, but BC Transit may withhold the planned increase if a private contractor does not perform as agreed.

To ensure the management of the contract, BC Transit employs contract managers, who liaise with the private contractors and have regular meetings to monitor and discuss improvements. The authority is aiming at developing a partnership approach with the private contractor, as they are convinced that it is the best approach to improve service quality.

In order to allow continuous monitoring and regular improvement initiatives, BC Transit has developed scorecards, where private contractors regularly measure themselves on business aspects like:

- Training programs
- Revenue handling
- Customer complaints and handling
- Maintenance programs

This introduction of regular monitoring is still work in progress; furthermore, the sheer size of the area and the rural structure of the operating area makes a continuous close cooperation difficult to implement.

BC Transit aims to work in partnership with the different private contractors and to strengthen the role and visibility of the authority. They want to take a more leading role and be stronger in defining processes and training requirements. BC Transit also wants to strengthen its branding across all services, aiming to give a more coherent look and feel as well as quality standard for the entire region.

BC Transit is considering the implementation of on-demand services and would like to mobilize the expertise of private contractors for this.

	FOOTHILL TRANSIT AUTHORITY USA	LA METRO USA	MASSACHUSETTS USA COMMUTER RAIL AND FERRIES	DENVER RTD	BC TRANSIT, CANADA
Contract size	360 buses split over 2 contracts	180 buses split over 3 contracts	1 contract for the entire area	Approx. 150 buses	2-80 buses
Contract duration	4+1 years	5 years	8 years+4 years	3+1 years	9+6 years
Strategy / Service Design	Authority designs the service	Authority designs the service	Joint	Authority designs the service	Transit Authority
Operations of the Private contractor	Schedules buses and drivers	operations of the service, maintenance, and training of the staff	Schedules vehicles and operating staff	Schedules buses and drivers	Schedules buses and drivers, in some cases maintains vehicles and facilities
Bus ownership	Authority	Authority	Authority (trains and ferries)	Authority	Transit Authority
Facility ownership	Authority	With private operator	Authority	Authority	Private contractor (mostly)
Revenue risk	With authority	With authority	With authority	With authority	With authority
Cost risk	With private contractor (excludes buses, depots)	With private contractor	With private contractor (including maintenance of trains, ferries, tracks)	With private contractor	With private contractor (mostly excludes buses and depots)
KPIs, Quality, Incentives	Service provision, compliance with maintenance and compliance with HR-requirements	Service provision, customer satisfaction, accidents, maintenance	Side agreement allow innovative fare collection practices.	Service provision including punctuality (basis for penalties), mechanical failures (basis for incentives)	Punctuality, cleanliness of vehicles and safety compliance. Penalties for non-reporting.

INTERNATIONAL CASE STUDIES

TRANSPORT FOR LONDON – UNITED KINGDOM

London, United Kingdom (UK) is an example of ‘Competition by route’, in which the private contractor has no or limited power to determine the transport service provided. It is often referred to as a contracting model in public transport, particularly for buses. In the Greater London Area with 8 million inhabitants, the primary role of Transport for London (TfL), which is a functional body of the Greater London Authority, is to implement the Mayor of London’s Transport Strategy and manage transport services across the Capital as one integrated system (routes, frequencies, fares). TfL is responsible for London’s buses, the Underground, the Overground, the Docklands Light Railway (DLR) and the management of Croydon Tramlink and London River Services. The special department “London Buses” within TfL is responsible for the request for proposal procedure and supervision of bus operations.

The route-based contracting approach introduced in London in 1984 grew to constitute the archetypical example of route-based competition. London features 700 urban bus route contracts, of which 15 to 20% is renewed each year (the contract duration is 5 years plus 2 years if certain targets are met).

Following a prequalification process, with specific criteria that need to be met by private contractor, TfL contracts-out on a route-by-route approach and awards the contract based on the best overall value with a priority given to passenger service, with the results of an important increase in ridership throughout the years (up 70% between 2000 and 2015), and thus of revenues.

The evaluation of the proposals during the request for proposal process includes the criteria such as, price, ability to deliver quality services, ITT, staffing (recruit, train and retain staff), premises, vehicles, financial, schedules health and safety records, etc.

The private contractors carry the risk on operational costs: personnel, energy, maintenance etc. Contract prices are subject to annual increases in accordance with the retail price index, while revenue risk lies with TfL. All assets are owned (or leased) by the private contractor. This includes the bus depots as well. Since planning controls make the construction of a new depot impossible in certain areas, this constitutes a barrier to market entry for new private contractors.

The service and the vehicle are specified by TfL. During the request for proposal process the bidder must provide a compliant bid but may also offer alternative options where these might offer better value to TfL. During the contracting period, routes and timetables can be changed at the direction of TfL at the mid-term of the contract (three-years), which provide good flexibility on the provision of the services. These changes, which could alter terms one way or another, are negotiated between the parties.

‘Private contractors are very good at operating service on a day-to-day basis, this is what they are there for. They know traffic conditions and we let them deal with that side of it’ - TfL

In case of contract changes, the contract price can be renegotiated. TfL sees the relationship with the private contractors more as a partnership to deliver good service for the passenger.

London buses operate under a “Quality Incentive” contract. This means that private contractors are penalized for poor performance and rewarded for exceeding threshold targets for on-time performance.

To encourage the provision of the high level of quality of the service expected, the contract also includes incentives, bonus capped at 15% or deduction capped at 10%, which could lead to reliability performance payments or contract extensions (2 years). The key performance measures for private contractors are the following:

- Graduated payment scale based on reliability achieved against targets
- Performance above targets which leads to bonus payments
- Performance below targets might lead to deductions
- Two-year contract extension offered if targets exceeded.

In cases of particularly poor performance TfL can take a contract away from a private contractor as a last resort. Customer satisfaction is assessed but is not used as a basis for payment of bonuses or penalties.

The measurement of the quality of performance is verified on the regularity on high frequency services, punctuality on low frequency services, driver and vehicle quality monitoring (research conducted by independent organization), customer satisfaction and others.

Since the implementation of these Quality Incentives Contracts in 2000, the Excess Waiting Time has been

reduced from approximately 2.2 minutes to about 1.1 minute. Also, during the same period, customer satisfaction was increased from 75% to 86%. All this while the service volume and usage increased substantially.

This performance-based approach has reached a point where the networks have become 'too efficient', in a way where buses had to slow down because the schedules were becoming too generous, as reliability became too good or over incentivized on reliability.

A new metric has thus been created called 'Journey time metric', which includes many different elements such as waiting time for the passengers stop, journey time on the bus, excess wait time and others. This new metric helps improve the overall passenger experience.

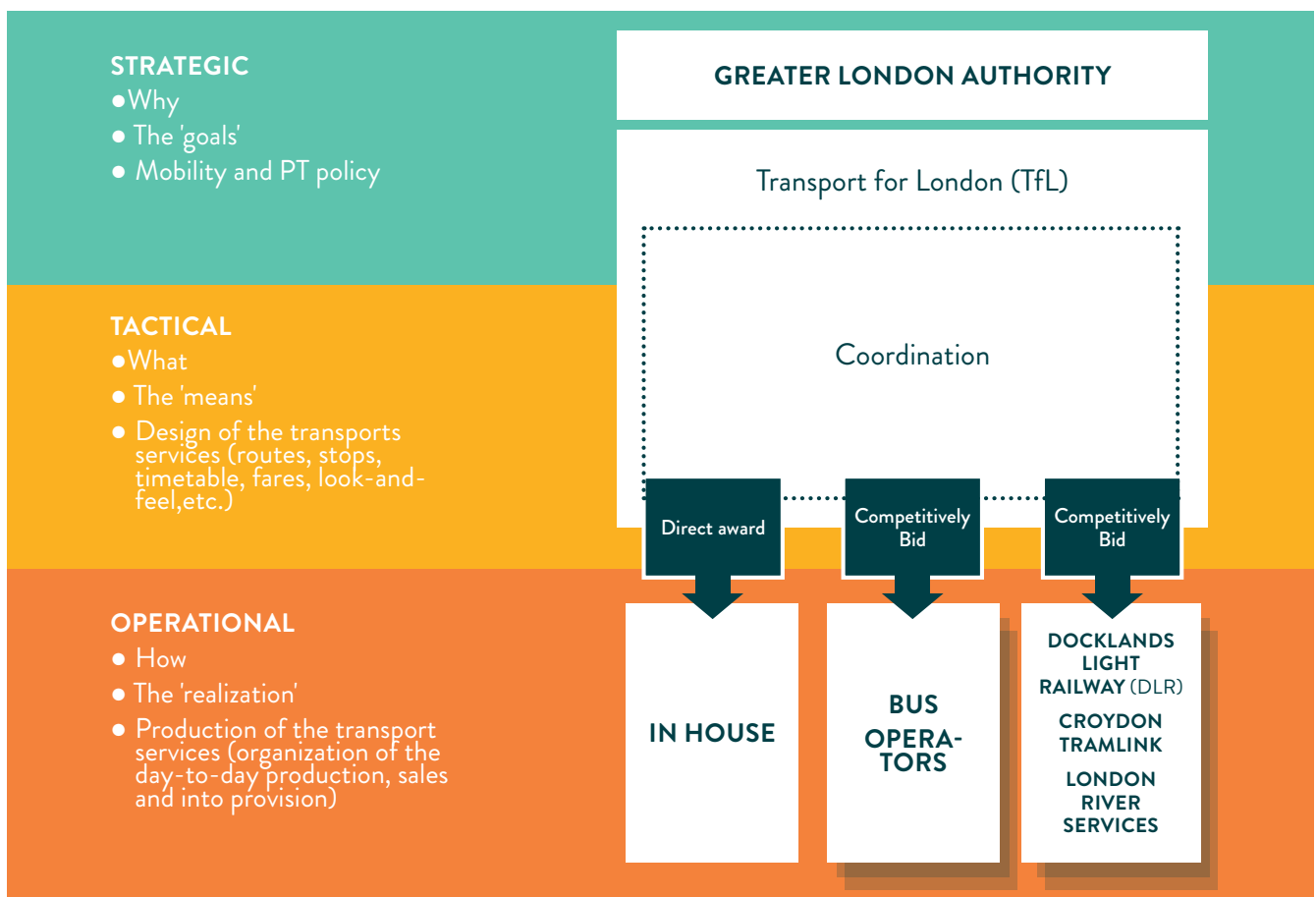
TfL is responsible for the planning, defining the service level and identifying the objectives of the public transport service, and these measurements facilitate the collaboration with the private contractors, which have a clear visibility on the targets that must be reached. Both

parties meet on a quarterly basis to review performance scores and discuss adjustments if needed.

Operational safety issues are monitored by data and can lead to such consequences as losing an existing contract or being barred from winning a new contract. TfL has developed a 'Vision Zero' Strategy with aims to reach zero fatalities on or by a London bus.

This is an objective that is shared by both the private contractor and the authority, but which is considered as early as the RFP stage, is the addition of new vehicle requirements within new contracts. The outcome of this specific attention to safety is the reduction by 62.7.1% of fatalities or persons seriously injured from incidents involving buses on the roads from the 2005-09 baseline¹⁶. TfL is also investing to provide drivers training on safety, in collaboration the private contractor, yet another example of the importance of the partnership approach in the contracting model in London.

TfL provides the operations of underground services in-house, and tenders out all other rail and bus services. Most railway assets are managed by TfL.



Source: Didier Van de Velde, Inno-V

¹⁶ <http://content.tfl.gov.uk/tfl-annual-report-2019-20.pdf>

SYTRAL – FRANCE

Lyon is an example of 'Competition by network' in which the private contractor has a main stake in helping to (re) design transport services. The city has 1.3 million inhabitants and features public transport by bus, tram, trolley-bus, metro and funicular. SYTRAL (Syndicat Mixte des Transports pour le Rhône et l'Agglomération Lyonnaise) is the organizing transport authority in the Lyon region. SYTRAL is responsible for the transport policy, the management and development of the transport network, and the delegation of its management to a private contractor.

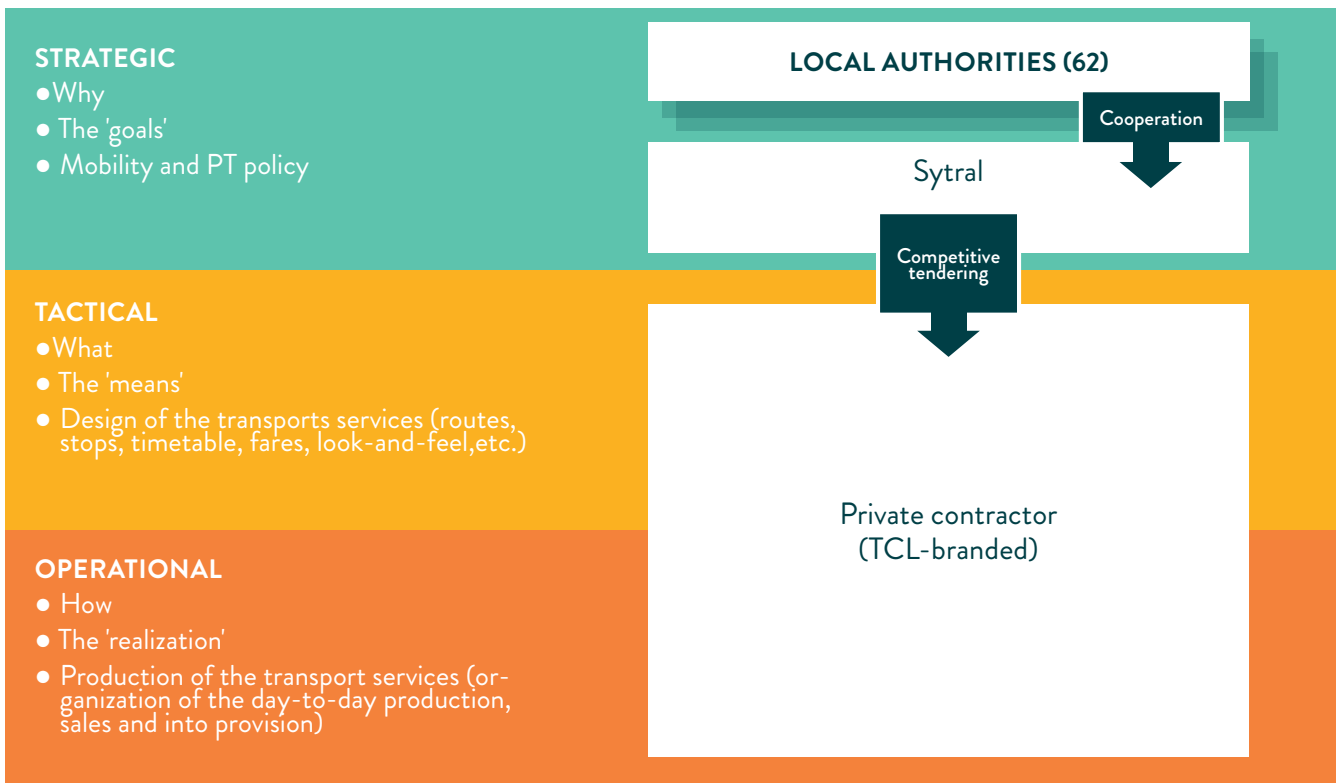
The management of the network is tendered out for five-year periods. The quantity and quality of the services (routes, period of operation, frequencies, location of stops, regularity, cleanliness, availability, information standards, security of passengers, control on fare evasion) as well as the fares are determined by SYTRAL, which also owns all assets. The contract is awarded following pre-selection and negotiations.

The freedom of the private contractor is limited by contract. The private contractor may suggest service improvements during the contract period, and/or help the authority in choices pertaining public transport policy. A list of initiatives to be realized results from the contractual negotiations between authority and private contractor. The private contractor may not use its own branding but

instead is required to use the 'TCL' (Transports Communs Lyonnais) brand and logo as determined by the transport authority on all rolling stock, tickets and marketing communications.

The contract is akin to a net-cost contract, with however a differential treatment of cost and revenue risks. The concessionaire receives a predetermined lump sum payment, regardless of the means to be implemented to provide the service; it commits to a minimum level of revenue, and pays the authority the difference between actual revenues and its commitment if the minimum commitment is not reached.

The authority measures the quality provided by the private contractor using various indicators (cleanliness, information, rolling stock availability, regularity, etc.) The private contractor's remuneration varies according to the quality of service and its performance in the fight against fare evasion, through bonus-malus mechanisms; services not run are not paid. The private contractor's financial commitments, both in terms of expenses and revenues, are set for the duration of the agreement, and are not questioned based on the results obtained each year. The investments are managed by the private contractor. The fares are set by the authority.



Source: Didier Van de Velde, Inno-V

VASTTRAFIK - SWEDEN

Västtrafik is the public transport authority responsible for the organization of mobility services in the area of Gothenburg.

Bus operating contracts are mainly organized by operating area, for some corridors into the city of Gothenburg they are organized in lines. The contract size is about 100 buses on average, but there are also smaller contracts for rural services or for an express line.

A variety of private contractors are active in the Västtrafik area, with urban operations attracting the bigger private contractors and the smaller private contractors preferring to bid on smaller contracts. In general, the contract size has been growing over the recent years, but mainly because of growing ridership.

Combination bids for several lots are considered if there are clear synergies expected, otherwise discouraged to give smaller private contractors a chance. The duration of operating contracts within Västtrafik is 10 years.

The first step before any request for proposal round is, due to the Swedish legislation that gives a first right to commercial market-initiated services, a market consultation to check if there is a party that would be ready to provide the necessary services without public support, which is normally not the case.

This consultation also involves hearings with all interested parties as well as individual meetings upon request to get feedback on market expectations and concerns for the upcoming tender.

Meetings are held before finalizing the request for proposal documents, and concept tender documents can be amended based on the results of these consultations.

The objective of this step is to listen to the market and ensure to design tenders that will attract qualified bidders.

The evaluation of bids can then include clarification rounds, aiming to ensure that bids and concepts are comparable. There is no negotiation about price, required services or contract clauses.

In order to facilitate the implementation of new vehicle technology, bids may include options, depending on vehicle technology. Such innovation ambition and the technologies considered are made clear in the request for proposal documents.



Quality has been growing in importance over the recent years. Contracts are evaluated with a 70% weight on price and 30% weight on quality.

The monitoring of the operations is done, among others, by evaluation passenger satisfaction, which is regularly measured through survey. Private contractors are invited to define questions for this survey. High passenger satisfaction scores can give a bonus of about 3-4% of contract volume. This is clearly considered a bonus, not an incentive.

There are a few penalties included in the contracts, they are mainly to ensure that the main mission is delivered, and so they are relating to cancelled services.

On the other hand, the current operating contracts include incentives. Since about the past 10 years it is a general rule in Göteborg that 30% of a contract payment depends on the patronage that a private contractor can achieve.

This model is used for every contract with a potential, such as major corridors and inside cities, but not in the countryside where the private contractor has limited leverage. Västtrafik considers this approach beneficial as it encourages private contractors to really focus on getting more passengers on board.

Contracts include some flexibility to accommodate growth, it can be 10% a year and 25% over the entire 10 years duration. Reductions are also possible up to a total of 10-15% of service volume. This has never been enforced before the COVID-19 pandemic, while in this case the reduction actually needs to be much more important.

A joint coordination board is set up for each operation. The meetings of this board are organized to review performance and set ambitions and improvement goals together. Beyond this, there are quarterly meetings to discuss contract development and innovations.

Contractors commit to a predefined level of service quality, which is continuously reviewed but both parties, also as regular meetings between the authority and the private contractors are meant to improve how the private contractor conducts its operations and increase its chances in future requests for proposals.

This is one example of how Västtrafik implements its vision of the partnership with the contractors, with always the firm objective to achieve the best service quality possible for its passengers. In general, partnership is crucial to mobilize everybody's expertise in order to improve public transport.

Västtrafik considers the cooperation with private contractors in a partnership approach and contracts with incentives to be very useful to ensure the continuous improvement of public transport service quality and efficiency.

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STORSTOCKHOLMS LOKALTRAFIK - SWEDEN

Although only a few years younger than the London model presented above, the Stockholm region, Sweden, has also used a competition model since the 90's. There are important differences however between the Sweden example and the London example, such as the planning responsibilities that are currently also partly delegated to the private contractor in Stockholm's case. This difference is compensated, in the bus sector, by an increase of risks taken by private bus operators, who are then, and to a variable extent according to the contracts, remunerated by the number of passengers as gauged by Verified Paid Boarding. This model leads to private contractors working more proactively to get more passengers.

The model changed overtime to reach longer contracts, while adding more responsibilities on the side of the private contractors but always maintaining the objective to gain on operational efficiency and increasing service quality. The contracts for public transport operations in Stockholm range between 100 to 360 buses and the private contractors own the vehicles as well as the depots, while in the rail sector, the authority owns the vehicles and infrastructures.

Over time, SL has lost the internal resources to effectively design the planning and this model led to the de-

Development of traffic operation contracts - our 25 year perspective

	1991	2000	2001-today
	1st generation	2nd generation	3rd generation
	CONTRACT LENGTH		
	Short 3 years	Longer 5 + 5 years	Long (investments and development) > Bus often 10+2 > Railway 10+4
	REMUNERATION / PAYMENT MODEL		
BUSINESS STRATEGY	> Production > Kilometers > Hours > LOW customer focus > LOW revenue focus	> Production with incentives on C SAT > MEDIUM incentive share (bonus) on customer perceived quality	> Verified paid boarding (VPB) or production > HIGH incentive share > # passengers and revenue > perceived quality
	DEMANDS AND RISK SHARING		
	> PTA vs. "The operator" > Hard factors, specific technical demands	> PTA vs. "The operator" > More functional demands	> "Proactive business partners" > More responsibility and risk



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SYDEY METRO - AUSTRALIA

Transport for New South Wales is the transport authority responsible for Sydney and the surrounding areas. Historically, bus public transport services in the central areas of Sydney have been operated by the state transit authority, while bus services in the outer area were contracted to private contractors on a net-cost basis. During the last decade, the authority has gradually changed the entire bus operation into contracts with private contractors.

There is a mix of asset ownership principles in New South Wales. Some buses are owned by private contractors, some by the state, but most buses today are linked to the contract. Contractors enter a financing agreement for the fleet, which would be transitioned to a new contract owner.

One specificity of the agreement, that was also seen in other case studies, is that most depots are not owned by private contractors, but by the authority, in order to minimize entry barriers to the market.

Bus operating contracts generally have a duration of 7 years. They sometimes include termination options for performance failure or extension options for good performance. This duration is generally accepted in the market as private contractors do not have to consider any capital expenditures.

Transport for NSW actively looked for innovation and aims to benefit from the professional know-how of private service providers. Contract tenders invite bidders to provide concepts for 3 different service levels:

- **Level 1** – “as is” – where bids must be based on the previous timetable to allow for a baseline price comparison.
- **Level 2** – “optimized” – where bids are based on the basic service offer so far but could be optimized to improve service and financial efficiency.
- **Level 3** – “blue sky” – where bidders are provided key data and available information on the operating area subject to the tender and invited to design their best concept.

Recent request for proposal procedures saw contracts mainly awarded between levels 2 and 3.

The awarding procedure in NSW is a negotiated procedure. All bidders are invited to provide an offer for levels 1 and 2, These provide the basis for the initial bid evaluation. The authority invites preferred bidders for a negotiation of level 3. All the bidders that are not reaching this phase are informed.

development of a strong partnership between the authority, Storstockholms Lokaltrafik (SL) and the contracted private contractors, as the latter used its expertise and knowledge of the routes to better design the planning and thus provide a service that better meets passenger expectations.

To achieve that, the private contractor suggests changes to the network to SL, in the framework defined by SL, which in the end takes a decision based on the shared knowledge, but also on the policies of the elected representatives when these suggestions can be implemented. This direct collaboration is key in increasing ridership figures.

This strong partnership can also be witnessed in the quality management system, with which the authority monitors the implementation of the contracts and their results. Indeed, with time and gaining from the experience of contracting, SL has reduced the number of penalties it was imposing when objectives were not met to focus more on those incentives that really allow the contractor to meet the target set. The purpose of this reduction was to spend efforts on the outcome, such as punctuality, customer satisfaction and reliability, and not on relatively arbitrary details.

The first step of the request for proposal process is the release of a pre-procurement document, a request for information, which describes the outline of the contract and the service procured. This is an opportunity given by the authority to the private contractors, so that they can share their inputs and suggestions before the release of the request for proposal.

Once the process is launched, only the private contractors that have prequalified will have the opportunity to answer the call. They will then be asked by SL to participate in multiple rounds of negotiations, which are in fact opportunities to better understand the proposal presented or to calibrate the expectations. The evaluation of the proposals is not only limited to the cost, but the competition is also on efficiency and the quality of service.



In order to address concerns about the negotiation and the potential fear to release know-how, strict confidentiality and non-disclosure clauses have been put in place. Negotiation meetings are permanently accompanied by a probity team observing the protocols and remain available for complaint. This approach is clearly foreseen in the procedure and it has not been challenged so far.

Bidders' capacity to come up with concepts improving the public transport service quality and efficiency are key to the selection process.

The authority uses different KPI to monitor the private contractor's performance during the contract, some of these include:

- Service punctuality
- Cleanliness
- Driver behavior and driving style
- Customer complaints and customer satisfaction
- Asset management including fleet availability and inspection failure

Vehicle inspections are done by independent representatives of the regulators. **All requirements are output based, the authority looks at the result, not the procedure.**

The current contracts are based on gross-cost model with penalties and incentives linked to the KPI defined, the same indicators that are used to closely monitor service efficiency and quality.

With the gross-cost model contracts, all revenue risk sits with the authority. This is considered an advantage in case of disruptions, such as in the current COVID-19

crisis, where the authority decided to continue running full service in a context of low ridership.

A net-cost basis for contracts has been repeatedly considered, but the local government opinion is that demand is mainly driven by external factors, such as timetable changes, fare adaptations or land-use development – aspects on which the private contractor does not have much influence.

As an exception, one tender for integrated services comprising light rail, bus and ferries, included a small incentive for patronage. Due to the private contractor responsibility for the entire public system, it was decided to give the private contractor the opportunity to aim for an increase of passenger numbers. This was not repeated in other calls, which concerned only bus services but not rail service, as it was considered that the private contractor does not have enough leverage to have an impact.

Transport for NSW aims for a partnership approach with contractors. Regular meetings are organized between private contractors and the authority's contract management team to review performance and day-to-day operations.

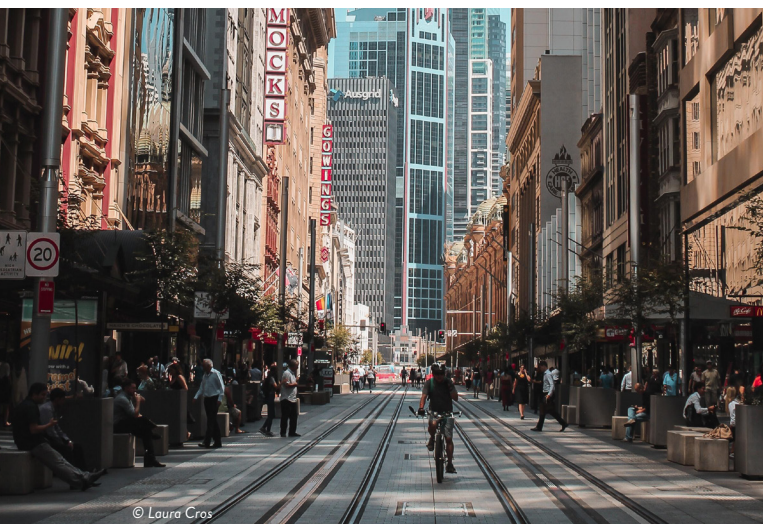
Shortcomings are analyzed and service changes are discussed if needed, for instance timetable adjustments because of congestion. Private contractors may suggest service changes, which they believe can improve service quality and efficiency. The decision lies with the authority. If needed, the gross cost level would be adjusted accordingly, limited however to avoid the need for re-tendering of the contract.

Apart from these regular reviews, there are also senior management meetings to discuss ideas and innovations. These are important to ensure that the latest technologies are considered to provide the passengers with the best service to meet their expectations.

The decision to contract public transport services in New South Wales was made because it was considered that the involvement of private transport contractors leads to:

- A demonstrable improvement in operating performance (punctuality)
- Improved customer satisfaction (driver behavior, driving style)
- Greater efficiency and financial sustainability (rostering and scheduling).

When the recent contracts were outsourced, there was a 20% increase in service provision within the same budget. Contracts also involved more innovations, such as on-demand services that were rolled out on a larger scale.





These benefits can be realized more easily when contracting larger network parts rather than on a line-by-line basis. The responsibility for an entire area allows more consistent planning and operation. It inspires more sense of ownership and encourages the private sector to bring in their skills and expertise.

Transport for NSW considers it important to be a well-informed client with a team having all the necessary expertise. Such a team is considered essential to prepare clear tenders and have useful discussion on the ideas from the private contractors – these are both requirements for efficient markets.

LAND TRANSPORT AUTHORITY - SINGAPORE

Often presented as a model for innovation in public transport, the Land Transport Authority (LTA) is the transport authority responsible for planning, developing and regulating urban transport in Singapore.

The Singapore public bus industry transitioned to the Bus Contracting Model (BCM) in 2016. Under BCM, bus services are grouped based on geographical area into 14 separate packages, with each package centered around a bus depot and comprising 300 to 500 buses that support 25 to 30 bus routes.

By September 2021, 5 of these 14 bus packages will be operated by bus operators that had tendered for these bus packages, while the remaining 9 bus packages had been negotiated with incumbent bus operators, SBS Transit Ltd and SMRT Buses Ltd that had been operating the bus routes prior to the transition to the BCM.

In general, the contract duration for tendered bus packages is about five years with a possible two-year extension. Any such extension will be offered to the private bus operator before contract expiry.

To ensure some flexibility to provide for service changes during the period of the contract, provisions in the contract allow for service variations, to allow LTA to adjust the bus services based on changes in ridership and commuter demand.

Under a gross cost model (GCM), bus operators are paid based on the agreed service fee (SF) unit rate per bus kilometer as provided in the contract. LTA takes into consideration the service kilometers that have been operated, where the SF is intended to cover the bus operators' operating costs with a required profit margin. The impetus for a gross cost model is to lower barriers of entry for new players, as well as ensure a level playing field to encourage greater market contestability and market participation. Under GCM, LTA bears full revenue risk



and owns all operating and infrastructure assets, which allows private contractors to focus on operational issues and delivering high service standards. It also allows LTA to better perform its role as the central planner across all modes of transport, as LTA is able to adjust bus capacity to be more responsive to changes in travel demand and public expectations more expeditiously.

Bus packages in Singapore are put up for open and competitive tendering. The tender evaluation comprises 2 stages – the first evaluates the quality of the technical proposal and the second assesses the value of the financial proposal. In evaluating tender submissions, both quality (the tenderer's capability and proposal) as well as price are considered, with the relative importance between quality and price determined before the tender is called. The technical evaluation is completed before the price bids are opened for the financial evaluation, which ensures that an objective evaluation of the quality is conducted prior to the opening of the price submissions, further emphasizing the importance that LTA accords to quality.

The quality aspects of the tender include consideration of a private contractor's capabilities in the areas of operations, manpower, maintenance, transition, customer service, labor-union management, security (physical and cyber), organizational set-up and historical track record. Important quality features or requirements of bus contracts include manpower requirements, where bus operators minimally have to comply with the Dependency Ratio Ceiling (DRC) specifically set for the services sector, which stipulates a maximum permitted ratio of foreign workers to total workforce. Industrial relations (IR) is another important quality requirement of the contracts, where there is an emphasis on having a harmonious IR and strong workforce-management relationship. There are also provisions in the bus contracts to ensure that

employees affected by transitions between the outgoing and incoming private contractors will minimally be at no worse off employment terms and conditions, with all such employees to be offered a job and having a choice on acceptance.

As the transport authority, LTA regulates the bus industry and public bus operators in Singapore. To incentivize private contractors to outperform service standards, LTA has put in place an incentive-disincentive framework within the bus contracts, a large part of which is the Bus Service Reliability Framework (BSRF). Under BSRF, bus operators are provided incentives for outperforming specified reliability standards but also penalized when they fail to perform up to these standards.

The BSRF stipulates key performance indicators to measure private contractors' performance in bus reliability, which is then used to determine an incentive or penalty amount. Each bus service assessed on BSRF is assigned a baseline. The incentive or penalty amount is based on the actual reliability performance of the service, as measured by the key performance indicator, relative to the baseline. Under the BSRF, key performance indicators are:

- Excess Wait Time (EWT) – EWT measures how regular a bus service is. It is the additional waiting time experienced by commuters beyond what they can expect to wait for a bus service that was operating exactly as its scheduled frequency.
- On-Time Adherence (OTA) - OTA measures how punctual a bus service is. It is the percentage of instances when a bus is not more than 2 minutes earlier and not more than 5 minutes later than its scheduled departure timing.

As owner of all bus assets and infrastructure under the BCM, LTA also has to ensure that bus operators are diligent in the maintenance and upkeep of assets. Bus operators are also required to maintain bus assets, systems and infrastructure to specified standards under the incentive-disincentive framework, with penalties for not meeting the standards.

Under the incentive-disincentive framework, private contractors are able to earn performance payment amounting to a maximum total of 10% of the service fee and can also expect to be penalized to a similar extent.

Despite the contractual nature of the provision of bus services under the BCM, LTA's relationship with its bus operators transcends the conventional contractual and regulatory dynamics and arrangements between regulator and transport contractors. LTA focuses on establishing a close partnership and relationship with public bus oper-

ators, which allows LTA to better understand commuter needs and obtain feedback from the private contractors on how services, contractual requirements or related works may be optimized and improved through frequent dialogues and engagements. For example, unique to Singapore, LTA maintains a close tripartite relationship with the bus operators and the National Transport Workers' Union (NTWU), which represents more than 90% of the bus workforce, to deepen workforce capabilities to meet growing demands and improve workers' welfare. LTA works closely with the bus operators and the NTWU on manpower development plans for the bus sector, and encourages private contractors to invest in training and development as well as education of their workers to equip them with the necessary skills and upskill existing workers. Additionally, the authority steps up as an industry leader to encourage and support private contractors to provide good quality service. An example is where LTA provides a Common Fleet Management System, which tracks operated and lost mileage, as well as EWT and OTA performance. Hence, it provides a platform and data source for private contractors to monitor and improve the quality of their services.

The healthy partnership is also contingent on transparency and communication. While LTA is empowered under the bus contracts to withhold payments in the case where private contractors fail to meet certain requirements, LTA believes that it is important to work with private contractors on these occurrences to mitigate the situation or to offer any required help in order to ensure service quality and to help private contractors improve in the future.

With this partnership approach, the multiple stakeholders within Singapore's public transport industry are aligned towards delivering an inclusive and high-quality public transport system for its commuters. This partnership arrangement enabled LTA to work closely with private contractors to manage COVID-19, such as working swiftly to implement additional measures to facilitate safe distancing on public transport, which includes putting up stickers and deploying transport ambassadors at transport nodes.

The benefits of the transition of the bus market can be witnessed in the significant increase in commuters' satisfaction over the years, with percentage satisfaction levels for public transport increasing from 88.5% in 2013 to 97.6% in 2020. LTA emphasizes its continual commitment to commuters in making public transport inclusive, safe and the preferred model choice for all.

	SINGAPORE	STOCKHOLM SWEDEN	SYDNEY AUSTRALIA	GOTHENBURG SWEDEN
Contract size	300-400 buses	100-160 buses	2,500 buses in operation by private contractors in Metropolitan Sydney	100 buses on average, also some very small contracts
Contract duration	5+2 years	10+2 years	7 years with options to shorten / lengthen	10 years
Strategy / Service Design	Authority designs the service	Joint	Authority designs the service (Private contractor can suggest adjustments)	Authority designs the service
Operations of the Private contractor	Schedules buses and drivers	Schedules buses and drivers	Schedules buses and drivers	Schedules buses and drivers
Bus ownership	Authority	Private contractor	Private contractor	Private contractor
Facility ownership	Authority	Private contractor	Authority (mostly)	Authority
Revenue risk	With authority	Partly with private contractor (remuneration) for passenger numbers	With authority	Partly with Private contractor (remuneration) for passenger numbers
Cost risk	With private contractor (excludes buses, depots)	With private contractor	With private contractor	With private contractor
KPIs, Quality, Incentives	Passenger satisfaction, waiting times, punctuality	Punctuality, customer satisfaction, reliability	Punctuality, driving style	High passenger satisfaction; Penalties related to cancellation of services

LESSONS LEARNED

As it has been demonstrated in the different case studies, the organization model for the provision of public transport services to passengers varies from one network to another, even if all those presented in this paper were including competition and request for proposal procedures.

While no model is perfect and all the professionals interviewed expressed the possibility to improve the process or the relationship between the parties, it remains that all see benefits in contracting their services to private contractors.

In California, Foothill Transit Authority has developed a strategy, using their contracting model, to develop innovation including the deployment of clean vehicles. The authority sees a benefit in the separation of the daily responsibilities of providing the public transport service and the more mid-to-long term political decision making. It also sees the benefits of partnering with big groups which bring experiences from other locations to improve the efficiency and the passengers' experience.

Massachusetts Bay Transportation Authority is contracting to a private contractor the service of its commuter rail. Early in the implementation of the contract and in an attempt to improve it, both parties agreed on a side agreement. This led to addressing an important issue on the network, farebox evasion and non-collection, as the authority witnessed an increase in fare collection, as well of revenues. The agreement also led to the introduction of innovation by the private contractor, as electronic handheld devices are now used by the train conductors for the on-board payment of tickets.

In the Los Angeles County, only a portion of the transit network is contracted to private contractors by the authority LA Metro. The aim behind the competition of these underserved portion of the network, was to increase ridership and improve the service, objectives considered to be reached by the interviewees. The management of the contract was done in a collaborative approach, with monthly meetings between the parties during which the exchanges were focusing on the improvement of the service. Suggestions of changes to the routes contract-



ed can also be brought by the private contractor and the authority to better meet the passengers' needs, while considering relevant experience from the field. Another important element to highlight, is the difference in cost performance between the average contractor hourly rate between private contractors which is approximately \$40 dollars less per hour range, compared with direct operated services.

RTD Denver has a history of contracting its public transport services, with contracts that include clear KPIs including on-time performance, but also incentives and penalty mechanisms to ensure the service quality. RTD is providing training to the private contractor's personnel to reach help reach this high service quality. The interviewees expressed their conviction that this model demonstrates economic advantages.

Among the benefits mentioned, the model of TfL in London, showed, since the implementation of Quality Incentives Contracts, a significant increase in ridership and revenues throughout the years, while implementing its route-by-route approach. The contractual agreement also provides flexibility for the private contractors to propose changes in the provision of services to better meet the demand, which, if approved by TfL can be highly beneficial for passengers. Lastly, the increase in efficiency led to the revision of the metrics used, which also improved the overall experience of passengers by more than 10% and reduced the excess waiting time by more than 1 minute.

In the Canadian province of British Columbia, the authority is using the contracting model to improve the quality, by implementing a measurement system which includes punctuality, cleanliness of the vehicles and safety compliance.

The LTA example in Singapore has also proven to be beneficial for passengers, with a particular focus spent on the quality of the services, with cleanliness, punctuality and maintenance as priorities. Their approach led the private contractors to take leadership in offering new features to facilitate accessibility for and developing new technologies. The partnership collaboration nurtured by LTA is increasing the level of satisfaction of passengers, as demonstrated in customers surveys.

In Stockholm, the evolution of the model, coupled with a redistribution of responsibilities towards the private contractors, led to a better use of the ground expertise to also propose a change in the planning to better meet expectations of the passengers. The strong collaborative approach between the authority and the private contractors led to a decrease in penalties and an increase focus on punctuality, customer satisfaction and reliability.



In Australia, Sydney Metro witnessed an increase of 20% of in the services delivered within the same budget with their new contracts. They also noticed that more innovation was developed and implemented. It also led to the deployment on a larger scale of new on-demand services. Their partnership approach, which included regular meetings with the private contractor and a dialogue on the different issues, allowed to bring effective changes to improve the service.

In the region of Gothenburg, Sweden, the contracting model implemented by Västtrafik is emphasizing the importance of the passenger's experience, which is regularly measured, and which can be rewarding for private contractors if they meet a certain success. The authority implemented incentives depending on the patronage achieved by the private contractor, which it considers as beneficial to encourage the increase in ridership.

These are only a few concrete examples, presented by the authorities that are implementing the contracts, of the benefits of contracting in public transport. As illustrated, the greater the alignment of objectives between the community, the agency, and the operator -- with the community's objectives guiding the rest and being evaluated on a regular basis -- the more effective such a partnership can be. The case studies also highlight different challenges associated with contracting in public transport, but in the context of global uncertainty and unprecedented challenges within the industry, the consideration for other models can offer new opportunities to maintain or even improve public transport for riders with high expectations and private contractors with significant challenges.

GLOSSARY

Accessibility: access to the public transport system and service offered in terms of geography, time, frequency, and transport mode including interface with other transport modes.

Authority: A government or public agency created to perform a single function or restricted group of related activities. The authority pertains to the government entity that is responsible for the organization of the public transport market. It is responsible for transport fare level, route designations and other public transport operating system policies, supervision, regulation and award of operating contracts and franchises. In some cases, the transport operating company and the authority are within the same government unit and perform policy, regulatory, planning, and operating functions. In other cases, the authority is a separate public agency that does not have any operating responsibilities but establishes public transport system policies and acts as the system's regulator.

Automatic fare collection: Transport payment systems based on the use of information and communications technologies. They are also referred to as electronic ticketing. These systems, compared to mechanical systems, are not only means of payment but also offer a large range of possibilities and data collection that make public transport easier to use, manage and control.

Commuter rail: (also called regional rail or suburban rail): An electric or diesel propelled railway for local short distance travel operating between a central city and adjacent suburbs. Intercity rail service is excluded. Expressed in terms of service, they are regular non-tourist passenger railway services within a medium-sized territorial and political entity which is larger than a city and smaller than a country. Typical suburban railway service would include a trip of maximum 15 km and less than 30 minutes travel time. The regional railway service is indicatively a trip of maximum 70 km with a transit time of 30 to 60 minutes.

Fare evasion: The unlawful use of public transport facilities by riding without paying the applicable fare.

Gross-cost contract: Under a gross-cost system the private contractor is paid a specified sum to provide the specified service for a specified period. All revenue is collected and remitted to the authority. The industrial risk is borne by the private contractor while the commercial risk is taken by the authority. The remuneration of the private contractor can be modulated by a bonus/penalty scheme according to the evolution of quality, patronage and satisfaction, which enables the authority to modify the level of commercial risk.

Light rail: A transport means permanently guided at least by one rail, operated in urban, suburban and regional environment with self-propelled vehicles and operated segregated or not segregated from general road and pedestrian traffic.

Line (public transport): An established transport connection between two terminals, along which passengers can board and alight at designated stops or stations.

Management contract: In this contract, the industrial risk and the commercial risk are taken by the authority. The authority pays the private contractor an annual remuneration including a fixed sum and a variable sum, which takes account the quality of management. The remuneration is not directly related to the profits but to other results of the management, that is to say, know-how, technical assistance, expertise, cost reduction, productivity gains and quality. Although the industrial and commercial risks are borne by the authority, the contract may include incentive schemes linked to changes in revenues, patronage or costs.

Marketing: The management process responsible for identifying, anticipating and satisfying customer requirements. Marketing is about getting the right product or service to the customer at the right place, at the right price, at the right time.

Net-cost contract: Under this contract, all revenue is kept by the private contractor. Therefore, the private contractor has to forecast both costs and revenues. The industrial risk is borne by the private contractor, as well as the commercial risk which is mainly taken by the private contractor. The private contractor is remunerated by the revenues and by a complementary compensation payment fixed by the authority with or without adjustment, for social fares or other public service requirements. The sharing of the commercial risk depends on the existence of this adjustment system between the fixed amount and the real revenues.

Network: A collection of transport routes serving a particular area, with individual routes complementing one another so travelers may use one or more routes during the course of their journeys.

Operations: All activities associated with the sub-categories of the vehicle operations function: transport administration and support; revenue vehicle operation; ticketing and fare collection; and system security

Private contractor: An individual or an entity, not publicly owned, such as a corporation or a partnership, in the business of providing public transport services against payment by the passengers and/or the authority.

Public transport (public transportation, public transit or mass transit): All transport systems in which services are offered to the passengers do not travel alone in their own vehicles. While it is generally taken to include conventional modes of transport like rail and bus services, as well as waterborne services wider definitions include taxicab services and other combined mobility services. However in such cases it is better to speak from collective transport. Public passenger transport are services compliant with the following attributes: are open to all (any system that offers services to transports citizens, have fixed times, frequencies and periods of operation amplitude, have published timetables, have fixed routes and fixed stopping places, or defined origins and destinations, are provided on a continuing basis and have a published fare.

Punctuality (of a transport service scheduled by time): The degree to which vehicles adherence to scheduled and published departure time from a terminal or at a stop on the route. Also called on time performance. For example, 95% (this is the norm) of all monthly bus services must adhere to not more than -1 and +3 minutes of its scheduled departure time at the stop. Usually it is applied to low frequency lines.

Quality: A managerial approach aimed at constantly improving services and the processes required to produce these services. Quality aims to improve customer satisfaction with a view to retaining their loyalty.

Risk on ticket revenues (commercial risk, ridership risk, passenger fare revenue risk): The risk taken by a private contractor that the actual revenues from passenger fares falls below/above the fare revenues estimated by the transport private contractor in its bid/proposal to the transit agency.

Route: The itinerary followed by a bus or train. While many variants are possible, the two main categories of routes are: (a) the end-to-end route where buses operate between two points, following the same roads in both directions, except where one-way street systems necessitate minor deviations; and (b) the circular route where buses return to the point of origin without traversing the same roads twice. This definition is also valid for rail modes.

Safety: Breaches of safety cover problems that arise as result of an accidental danger. Traffic related safety incidents include accidents arising from interactions among passengers, vehicles and pedestrians.

Vehicle maintenance: Maintenance includes all activities associated with revenue and non-revenue (service) vehicle maintenance, including administration, inspection and maintenance, and servicing (cleaning, fueling, etc) vehicles. In addition, vehicle maintenance includes repairs due to vandalism and accident repairs of revenue vehicles.

This is an official Report of UITP, the International Association of Public Transport. UITP has more than 1,800 member companies in 100 countries throughout the world and represents the interests of key players in this sector. Its membership includes transport authorities, operators, both private and public, in all modes of collective passenger transport, and the industry. UITP addresses the economic, technical, organisation and management aspects of passenger transport, as well as the development of policy for mobility and public transport worldwide.

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