EMTA
EUROPEAN METROPOLITAN TRANSPORT AUTHORITIES

Proceedings

WORKSHOP

« Contracts : A tool for public transport authorities »
Rome, 23 November 2000

EUROPEAN METROPOLITAN TRANSPORT AUTHORITIES
c/o S.T.I.F 11 Avenue de Villars F-75007 PARIS
T : + 33 (0) 1 47 53 28 00 / F : + 33 (0) 1 47 05 11 05 / e-mail : webmaster@emta.com
http://www.emta.com

SUMMARY

Introduction

Stéphane LECLER
Secretary General of EMTA

One of the main tasks of the Association of European Metropolitan Transport Authorities (EMTA) is to encourage and promote the exchange of information and experience between authorities responsible for the operation of urban and regional transport systems.

It was to this end that EMTA organised on the 23rd November 2000 in Rome a seminar on the topic «Contracts: a tool for transport authorities» in order to take review of current European contractual practices. This Record of Proceedings provides a synthesis of the papers presented at the seminar.

Contracts between public authorities and public transport operating companies, which are very frequent in the French model of concessions (« délégations de service public »), and which may also apply to water distribution or household waste treatment, are being used increasingly in the majority of European countries. The European Commission's draft Regulation on public service requirements for the transport of passengers makes contracts mandatory whenever an exclusive right is granted to an operator, i.e. the operator has a monopoly to operate the routes, or when the financial compensation paid to the operator to offset the public service constraints he is required to satisfy, is likely to hasten their use.

What are the underlying reasons for the sudden attraction of such contractual models?

Firstly, the contract represents a balanced attitude towards the management of public services. Between the two extremes of a public monopoly on the one hand and total deregulation on the other hand, the contract allows a precise definition of the responsibilities of the public authorities and of those which may –some would say must- be assumed by the outside operators. From this standpoint the contract is a means of expressing in concrete terms the ideal European model for public services; namely, the conjugation of meeting the interests of the public at large and achieving economic efficiency.

Secondly, the contract is the expression of mutual and reciprocal commitments, which ensure that the players are aware of their responsibilities, to the greater advantage of their users/customers. The basic characteristic of the public transport sector being that it cannot exist without huge public subsidies, the contract is a means whereby the players are constantly reminded of their accountability in terms of good governance. The transparency of the relations between the public authority and the service operator, especially in financial terms, clearly makes them aware of their accountability.

Finally, the contract allows the time factor to be taken fully into consideration. Investment planning, quality of service enhancements, improvement of timetables or the scheduling of public appropriations can be set out and quantified clearly in the contract, thus providing the public authority and the operating company with a clear vision of the way ahead without which nothing can be undertaken.

The following texts demonstrate the extreme diversity of the prevailing situations in which contracts are used. They bear witness to the usefulness of contracts, which are a fantastic tool at the service of transport authorities.

Session 1

Presentation of Contracts

Session 1: Presentation of contracts

The paper presented by *Alain Meyère* (Syndicat des Transports d'Ile-de-France) shows that contracts have been used for a very long time in France where local authorities have the choice of operating the transport systems themselves, or contracting the service to outside operators.

Thierry Duquenne (Ministère de la Région de Bruxelles Capitale) explains how the contract may be used to govern relations between a public authority and a company operating a monopoly, and which is solely answerable to the public authority. In Brussels, contracts have enabled losses by the public service operator to be reduced and brought about an increase in services. The third renewal of the contract will provide an opportunity to define the respective roles of the public authority and operator.

The papers presented by *Giovanni Serra* and *Valeria Manfreda* (Comune di Roma) explain how the service contracts entered into by the public authorities and the public operators have led to a reduction of operating costs, and hence public subsidies, while at the same time increasing use of public transport and improving the quality of service. The new statutory legislation in Italy making it mandatory to separate regulatory functions and provision of services and which requires public calls for tender, will make it even more necessary to use the contractual process.

Björn Dalborg (AB Storstockholms Lokaltrafik) addresses the organisation of public transport in Stockholm since 1990. Calls for tenders put out by the public authorities enabled costs to be reduced and an increase in services. The public authorities' current priority concerns quality of service, which is given due prominence in the contracts.

Jörg Lunkenheimer (Rhein-Main-Verkehrsverbund) explains how RMV, the body responsible for transport in the Frankfurt Region, awarded the local rail transport services to outside operators and describes the type of contractual relations which exist between RMV and the operators.

The presentation by *Francesc Ventura i Teixidor* (ATM) depicts how integrated fares were introduced for the Barcelona Metropolitan Area and explains the consequences of their inclusion in the contracts between the authorities and the operator.

Carlos Cristobal Pinto (Consorcio de Transportes de Madrid) describes an infrastructure project (interchange), which was made possible by a concession using private funding.

Alain MEYERE
Department of Studies
Syndicat des Transports d'Ile-de-France

Contracting out urban public transport service. The French experience.

Syndicat des Transports Ile-de-France
9/11 Avenue de Villars
75007 Paris
France

Contracting out urban public transport services.

The French experience

Alain MEYERE

Outside the Paris-Ile-de-France Region, urban public transport services are mainly operated by private companies under contracts to local public transport Authorities. This paper describes the origin of this unusual situation in Europe and the different types of contracts in application for this moment.

The institutional framework in France :

There are in France, like in England, two different legal frameworks to provide urban public transport services : one applies in the capital region (Paris-Ile de France) and another outside, in the Province. The first one is based on a system of exclusive rights protecting an operator from competition from new entrants. This system is changing and Jean Guillot will present a paper on its evolution. The second system is based on controlled competition and contracts between a public authority and operators. In both systems, there is a clear distinction between the organisation of services, and the operations.

The two principles governing the provision of urban public transport services outside the Paris-Ile-de-France Region are the following :

- The organisation of public transport services inside the urban area is a local public monopoly. The public transport authority ("*Autorité Organisatrice*") in charge of this skill is a municipality, or a group of municipalities, sometimes associated with a *département*.
- Services could be either contracted out or directly operated by a publicly owned institution.

Contracting out is not compulsory, but only a possibility. About 90% of urban public transport services are contracted out to passenger transport companies. These companies are mainly private ones (most of them belong to national transport groups), but there are also semi-public ones ("*Sociétés d'économie mixte*" : the majority of the capital belongs to local community). Contracts are awarded by competitive tendering for a limited duration (mainly five years).

This situation is the result of a long historical process concerning urban public transport industry among which one can distinguish four periods.

First period : how to finance, operate and maintain electrical tram lines ?

The origin of contracting out urban public transport service takes place more than one century ago, with the construction of the first electric tramway lines in the cities. The solution for financing the investment was mainly to make use of private financing techniques. The public authority contracts out with a private investor which provides funds to build, operate and maintain the equipment. After a period of time long enough to enable the investor to recover its investment, the equipment is transferred to the public transport authority.

Generally, private investors took the form of consortiums merging banks and private companies from electrical industry. The capital represented an average of 20% of the total cost of the project, the rest of costs being covered by bonds. This specific form of project financing led rapidly to the constitution of a few transport groups operating electric tramways in French cities. The French name of this kind of contract is "*concession*".

At the end of concession (mainly after the first world war), after transfer of the equipment to the public authority, the question of who would operate the tram line was addressed. A new profession had emerged during the previous 20 years, with its own know-how : urban transport operator. The majority of public authorities decided to let them operate using a new form of contract, the franchise contract (called in French "*affermage*"). This contract is an answer to the question : is it possible to allow a private operator using the public infrastructures, now belonging to the public authority ? It is based on the principle of leasing out. The operator hires the infrastructure and pays a rent to the public owner. He takes the entire risks of operations : risks on operating costs (including maintenance) and risks on commercial receipts.

From the point of view of the risk, both contracts are at private company's risk. The duration of the contract was at least equal to the length of life of the rolling stock necessary to operate : about 20 to 25 years.

Second period : operating bus networks

With the apparition of bus, the same philosophy drove the organisation of urban bus networks, different from the one used for interurban and rural services. Outside urban areas, operators were given exclusive rights for operating a given line, providing this line does not compete with an existing railroad one. For urban bus services, the system of contracts was continued : contracts for a given length of time, at operator's risks (« *contrat aux risques et périls* » in French).

Hence, between the end of 19th Century and the middle of 20th Century two different regulatory framework were in place in France :

- For urban areas, the framework was based on contracts given for a limited length of time for operating a whole network. The operating companies belonged mainly to a few numbers of national transport groups.

- For interurban service, the framework was based on exclusive right given to a single line without any limit of duration. The operating companies were very various, from local small operators to subsidiaries of big companies from car industry.

Third period : adapting to the competition with private car

After the 2nd World War, the dissemination of car ownership among the population led to financial and economic problems. Private companies operating at risk began to cut their services in order to avoid or limit their rising deficits. The only solution to maintain urban services was to bring public money into the system. In other countries, the same phenomenon led to the disappearance of private companies (nationalisation or municipalisation). This way was not chosen in France. The public transport industry, after having supported the claim for dedicated resources to public transport authorities, began to propose since the beginning of the 70's new types of contracts where their fee came not from users but from public authorities. The same argument as used for franchise was used at this time : they had know-how and they could send it to public authorities.

A first law in 1979 (*Loi TPIL : Transports Publics d'Intérêt Local*) codified the different types of contracts. A second law in 1982 (*LOTI : Loi d'Orientation des Transports Intérieurs*) confirmed the legal arrangements of TPIL. In 1993, the Loi Sapin reformed, for more transparency, the competitive procedure for delegation of all kinds of public services, including public transport services, in particular imposing tendering (which was not compulsory before).

The present period : four types of contracts

Now, we have in France 4 types of contracts for operating PT networks. They could be analysed through the share of risks between the operator and the authority.

1. The management contract (*gérance*).

The industrial risk (on operating costs) and commercial risk (on fare revenues) are on public authority' side.

The operating company makes expenses or collects revenues on behalf the PTA. It receives a fee depending on the size of the network operated and on the quality of its management (administration). The length of contract is mainly 5 years.

2. The gross cost contract (*prix forfaitaire*)

The industrial risk is for the operator and the commercial risk is for the PTA.

The operating company receives a fixed price for operating the given network. It collects fare revenues on behalf of PTA. The PTA receives fare revenue as a receipt, and pays a fixed amount of money to the operating company.

The guaranteed revenue contract (*recette garantie*)

In this case, the public transport company is supposed to operate at risk, but the public authority guarantees a minimum level of fare receipts. The industrial risk is for the operating company, and the commercial risk is shared between the two partners.

3. The net cost contrat (*subvention forfaire*)

The public transport company operates at risk, but the fare level is not enough to cover operating costs. The public transport authority allocates a fixed amount of subsidy to complete fare revenues. Hence, there is no risk on public grants.

During the 70's, management contracts represented more than two thirds of all contracts. By now, they are about one third, as gross cost contracts are. Net cost contracts represent approximately 25%. According to the evolution of their transport policy, public authorities adapted the content of their contracts. After the recession of public transport during the 60's, they have had to develop it and they accepted the risks : the management contract was the right tool for that. When the networks stabilised, they adopted gross cost or net cost contracts.

Conclusion : the patterns of the French framework

Outside the Paris-Ile de France Region, provision of urban public transport is based on the principle of subsidiarity. It is a local duty on the hands of Public Transport Authorities which have a large freedom in the way operations are secured :

- PTA decide on the level of service, on creation or modification of transport lines, on fare levels.
- PTA have the choice to operate themselves or to contract out.
- PTA have the choice of the kind of contract. They can complete one of the 4 types by specific incentives. i.e; : a gross cost contract with bonus/malus according to a traffic target (or a revenue target)
- They have the choice between operating companies. The competition has been limited until now by the fact that there is only a few number of groups. But one has to recognise that competition acts as a pressure on the company in operation. And we have to add that competition is increasing with the European market : the system is open to foreign operators : the network of Perpignan is operated by a Spanish company.

Do operators only have a passive role in the French system ? No, because they have a strong power of proposing technical answers to mobility needs. Operators often initiate projects, but there is a need for public authorities to be able to discuss with them at a technical level because final decision is taken at a political level. Results depend on the quality of partnership between operators and public authorities.

Thierry DUQUENNE
Chief Engineer
Brussels Region

Contracts to regulate relationships between authorities and operators.

Brussels Region
Rue du Progrès 80 Bte 1
1030 Brussels
Belgium

THIERRY DUQUENNE,

Rome, November 23, 2000

1. Belgian Institutions

Belgium is a Federal State. Distribution of responsibilities:

The State is competent in matters relating to finance, foreign affairs, defence, police and justice. In the transport sector the state has maintained responsibility for standards and oversees railways (Société Nationale des Chemins de fer Belges) and Brussels National airport.
The 3 Regions: Flanders, Wallonia and Brussels-Capital are competent for public works, urban and regional transport, inland waterways, the economy, agriculture, employment, housing, and town and country planning.
The 3 Communities: Flemish, German-speaking communities and Wallonia-Brussels are competent for language-related questions (Dutch, German and French), viz. Culture, Education and Health

A Federal Law establishes the administrative boundaries and the official language or languages in these areas.

There also are three entities specific to Brussels, the capital, because of the coexistence of French and Dutch.

Each entity has a parliament with legislative powers, and a government, the Executive.
These powers coexist without any special hierarchy. An Arbitration Tribunal settles any competence-related dispute. «Co-operation Agreements» govern those areas involving several authorities.
By way of illustration, there is a Co-operation Agreement covering those public transport routes extending beyond the administrative boundaries of the Regions.

2. The Brussels Institutions

The parliament comprises 75 members elected on a proportional basis. Since 1999 there are 64 French-speaking and 11 Dutch-speaking members. The government is made up of 5 members, each with their specific portfolio; some matters are delegated to Secretaries of State. The federal law provides that 2 ministers and 1 Secretary of State in the government shall be Dutch-speaking, the Minister-President belonging to the majority linguistic group.
Decisions are taken unanimously on matters for which the 5 government members are responsible. Certain delegations of powers exist which entail that ministers' independence is limited.

3. Contractual relations between the Responsible Authority (Brussels-Capital Region) and the Operator (Société des Transports Intercommunaux de Bruxelles - STIB)

An "ordonnance" (law adopted by the Brussels parliament) governs the way the regional public transport operator fulfils his obligations. The statute was enacted on November 22 1990.
The ordonnance defines the services to be provided by the operator (STIB); stipulates that a Contract of Conditions shall set out the public service obligations of the operator, and that a management contract shall govern relations between the Region and the Operator. The ordonnance also defines precisely the role of the Region with regard to any modification of the operator's company articles.
The management contract sets out the rules governing the following:

- The objectives assigned to the parties with regard to the operation of services, management methodology, the structure of the company, its relations with customers, and the commercial policy of the company;
- Management principles and modification of the network of routes;
- Investment plan;
- Operational financial schedule: fares, off-setting of deficits, subsidising of loan fees;
- Investment scheduling;
- Financial interest in achieving the objectives and sanctions to be applied if they are not met;
- Conditions for renegotiating the contract.

The management contract is first negotiated between the Region and the STIB **AND** then between STIB and the operating trade unions.

4. Public transport in Brussels from 1875 to 1945

Public transport started up under a scheme based on private concessions, as the sector was, at the time, very profitable. Many companies started up operations, for example, in France, China and Russia.
After the 1914-1918 war mergers led to the founding of S.A. Les Tramways Bruxellois, which was to become the sole urban transport operator in Brussels. By 1935 it had reached its high point. At that time it operated 75 tramway routes with a fleet of 1000 trams and 500 second carriages.
Its concession expired on December 31, 1945. The tramway network suffered considerable damage during the war.

5. Public transport in Brussels from 1945 to 1990

This period was marked by the involvement of the public authorities (State plus the Districts (communes) with private shareholders in S.A. Les Tramways Bruxellois continuing to participate in the capital of the operator which, by 1953, had become the «Société des Transports Intercommunaux de Bruxelles. The company did not change much between 1945 and 1963. The company experienced an ever-increasing drop in the

number of passengers which it tried to overcome by purchasing new trams representing 150 traction units, each with a seating capacity of 60.
The first deficits happened at the beginning of the Sixties. The State as principal shareholder began to give thought to the best way to regenerate the use of public transport and decided to develop an underground network in the Brussels, Antwerp, Liège, Charleroi and Gent.
Between 1960-1990 the deficit swelled from 0 to 175 million Euros. During the same period the number of passenger journeys dropped from 255,000,000 to 187,000,000.
1963: Beginning of the construction of the Underground by the State
1969: Opening of the first Underground line
1980: Private sector disengagement from the capital of STIB
1981: Restrictions introduced; investments cut back; track maintenance curtailed (almost no new track laying.)
1986: Serious State financial crisis. Investments reduced from 50 million to less than 28 million Euros.
1989: Regionalisation of public transport in Belgium, except rail services. By this date, the Underground had an overall length of 40 kilometres.
In 1990, the average age of buses was 15 years, trams 20 years.

6. Initial Management Contract 19.3.1991- 31.12.1995

The first contract focused primarily on the re-deployment of the company:

- Making up for the lack of investments

- Purchase of 120 buses (replacements for 1975-78 purchases)
- Purchase of 51 tram cars (replacements for 1951-1956 purchases)
- Re-opening of tramway routes suspended because the tracks had not been renewed due to the 1981-1990 restrictions
- Extension and construction of new tramway lines
- New bus routes (ring routes)
- Underground infrastructures belonging to the Region were made available to the STIB, which carries out maintenance work, using its own budget for major repairs, renewal of installations, excluding rolling stock and tracks.

- **New scheme for financial compensation**

  - 141 million euros for operations
  - 50 million euros to reimburse debts and interest (12% at the time!!!) which represented a **sum of 191 million Euros** at the beginning of the contract. This envelope shot up to **275 Euros** by the end of the contract on account of various compensatory mechanisms, in particular for the increase of supply over the period.
  - 52 million Euros authorised for investment

- Moreover, STIB receives from the Contracting Authority 6 million Euros for bus stop furnishings and maintenance of 500 Underground escalators.

- **Finishing of additional 3 km long Underground construction works started by the State**
  -**Network definition:** carried out by the Region after consultation of STIB.

During this period the number of passengers increased from 187,000,000 to 212,000,000. At the same time, the quality of service and schedules improved.
Despite the efforts made in terms of investment, 35 km of tramlines required urgent re-laying at the end of 1995 (speed restricted to between 10 and 27 km/h.) The average age of buses fell dramatically, whereas that of trams remained steady.

7. Second Management Contract: 1.1.1996 to 31.12.2000

- Main characteristics:

The interests of customers/passengers are given greater prominence.
Quality control is carried out by means of a «customer» barometer to find out how they perceive the services provided by STIB.
Financial responsibility of STIB: the company must operate within a reduced financial budget.
Introduction of a specific budget for the creation of innovative services
Acceptance by STIB of a charter defining its commitments to customers
BUDGET: globalisation of the financial stants at 265 million Euros representing a reduction of 10 million compared to1995.
The level of yearly investments was set at 67 million Euros. At the same time, the level of the debt was drastically reduced.
TRANSPORT SUPPLY: adaptation on the basis of proposals by STIB. This aspect has changed little during the contract.

Other elements:
- The construction of the Underground was relaunched (4 Km of workings decided).
- Increase of Underground transport capacity (purchase of 25 carriages, 8 of which for future extensions.
- Replacement of 200 buses.
- Major catching up operation to replace tram-lines (by the end of 1999, 1 kilometre of track was limited to under 27 km/h).
Intensive renewal of initial Underground equipment.

8. Third management contract 2001-2005

The main aspects of the contract are:

- Clear definition of the tactical and operational missions of STIB and the sharing of the strategic mission between the Region (urban travel plan) and STIB
- Investments to increase transport capacity to meet the objectives of the first urban travel plan in 1998: purchase of Underground carriages and large capacity tramcars.
- Opening of 3 km of Underground lines
- Opening of 3 km of tram lines
- Allocation of 347 million Euros
- Plus and minus points system for assessing performance and improvement of financial transparency

- Commitment by the Region as to commercial speed (improvement of existing 40 km of dedicated tracks and the development of a further 48 km; contracts to be concluded with the Communes (districts)

9. Evolution of principal parameters

		1975	1980	1985	1990	1995	1999	2000
Public compensation	Euros (millions)	94	136	189	180	209	220	NA
Debt	Euros (millions)	143	245	278	270	478	458	NA
Customers	Journeys (millions)	197	213	192	193	213	209	217

The level of public compensation increased except for the period of heavy restrictions introduced because of the serious national budget crisis in 1986. Indebtedness followed the same pattern, reaching a high point between 1990 and 1995 because of the need to catch up on postponed investments which had accumulated during the crisis.
The number of passengers did not evolve regularly. A strong increase occurred between 1975 and 1980. This was due to the major extension of the Underground in 1976 and the second oil crisis. From 1980 to 1990, the number of passengers surface transport fell dramatically; oil prices dropped heavily. Between 1990 and 1995 passengers were won back with the start-up of the second Underground line and improvements to surface transport, especially tramways. From 1995 to 1998 the situation stagnated; the figures dropped in 1999 due to insufficient control of fare cheaters. In 2000 growth was recovered thanks to a new fraud repression policy AND the rise in fuel prices.

10. Conclusions

The changeover from a system of concessions to a clear-cut administrative system under the authority of central government (Régie) has come about through changes in the economic environment, particularly increased private car use resulting from the growth of the economy during the years 1950 to 1975. Concerned about the huge debt situation, central government neglected its responsibilities in the transport sector. Ever increasing congestion on the roads can be traced back to the restrictions imposed on SNCB in 1983.

Regionalisation of urban transport provided an opportunity to define a new method of working and new relations between the transport authorities and operators.
In Brussels, the introduction of management contracts offered the occasion to have a broad debate on the future of public transport, and the financial requirements to bring about service improvements.
However, the wish of the legislator to grant a greater degree of independence to operators limited the transport authority's negotiation power. Relations can be summed up wittingly as follows: the financial envelope for the previous contract enabled the operator to do what he wanted; any extras the transport authority wanted had to be paid for at an average cost.

The first management contract suffered from considerable drifting in terms of the financial compensation paid out, due partially to the high inflation levels at that time. The belt tightening introduced by the transport authority during negotiations on the second contract resulted in the operator being unable to introduce innovations. It was as if the operator was just going to sit out the storm.
Nevertheless, considerable progress can be noted:

- Change in mentality of operators' management approach: the customer is now the focus of their attention
- Development of a «quality» process
- Up-grading of infrastructures
- Clearer definition of the operator's mission

Dynamic thinking was not the operative word in terms of network organisation under the second contract, whereas the first contract corrected the «missing links» in the network. Travellers had, in some cases, been waiting 20 years for the gaps to be filled.

The opacity of production costs prevents the transport authority from being involved in the re-deployment of the network. Perhaps STIB is frightened to have their costs compared with those of other operators?

Following the consolidation period – 1990 to 2000, the third contract should enable the development of the company so as to be in a position to cope with a 25% increase in peak hour demand, while remaining within the limits of the financial envelope similar to 2000. This is a challenge. If, for any reason, the operator is unable to do so, there is a good chance that pressure to provide access to new operators, either from the private sector or non-domestic public sector, will be increasing.

Giovanni SERRA
Politiche della Mobilità
Comune di Roma

The public transport reform in Rome.

Comune di Roma
Dipartimento VII
Via Capitan Bavastro, 94
00154 Roma
Italy

DIPARTIMENTO VII
Politiche della Mobilità

COMUNE DI ROMA

THE PUBLIC TRANSPORT REFORM IN ROME

SPEECH BY DR. GIOVANNI SERRA [1]

REFORM POLICIES

The process of restructuring and development of public companies, carried out since 1994, has allowed the establishing of the basis for the transformation of the "transport system", which represents a complex and delicate system due to its economic importance, its social value and the large number of people employed in it. If, in the last two years, the City Council has been able to start the transformation of the system and re-definition of the company and organisational arrangement of the subjects involved, this has been made possible thanks to the process of restructuring and innovation carried out during previous years.

Firstly, the companies were restructured from the economic and financial point of view, reducing the public contribution and blocking the creation of deficits.

The introduction of service contracts later allowed, thanks to a progressive improvement of the levels of efficiency and effectiveness of the companies, the progressive reduction of compensations and to aim at an increase in productivity levels and quality of services.

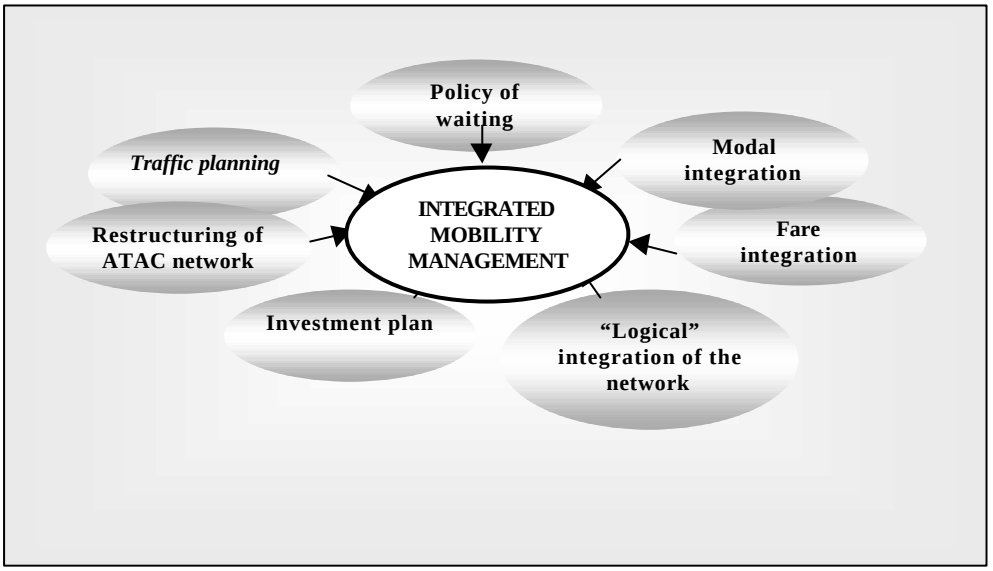
Considerable resources and competences have been dedicated to this aim to strengthen the function of policy and controlling the "client" with the objective of using the contract as a powerful lever for control of the service by the City Council.
The functioning of the system is now founded on relations of a mainly contractual nature that allow government of the specific function of commissioning of the administration and will guarantee passage from a monopolistic system to a regime of competition for the market.

The City Council Administration then took the opportunity of the national reform of Public Transport to redefine the entire management model of the transport system according to a process of activation that envisages transformation of public companies into joint-stock companies and gradual opening of the market to competition.

(*) Director of the Transformation Organisation Unit of the Public Transport Companies – Department VII Transport Policies – Rome City Council.

Furthermore, development of the public transport system is founded on another two areas of intervention: the investment programme envisaged by the City Council and carried out in the sector of transport (infrastructures and rolling stock) and the project of restructuring of the public transport networks and in particular of the urban network of buses.

On these themes the concrete modes of planning and management of transport stem from different documents of planning (General Urban Traffic Plan, Integrated Transport Programme, Urban Parking Programme, Transport Plan) approved or being approved by the administration.



The main characteristic of the planning activity is the integration of the different components of the transport system, that represents a highly systemic approach of the modes of intervention.

The new approach to transport policies has characterised the action of the City Council in the recent period. Improvement of company performances and the standards of service cannot leave aside a growth of the effectiveness of the whole system of public transport, which may be considered a part of the even more complex system of transport that is linked to a correct development of the territory in coherence with the socio-demographic dynamics of the city.

The final objective of the strategy of the City Council Administration is to set up a public transport system that guarantees citizens the right to mobility and a better quality of life especially in the area of the centre.

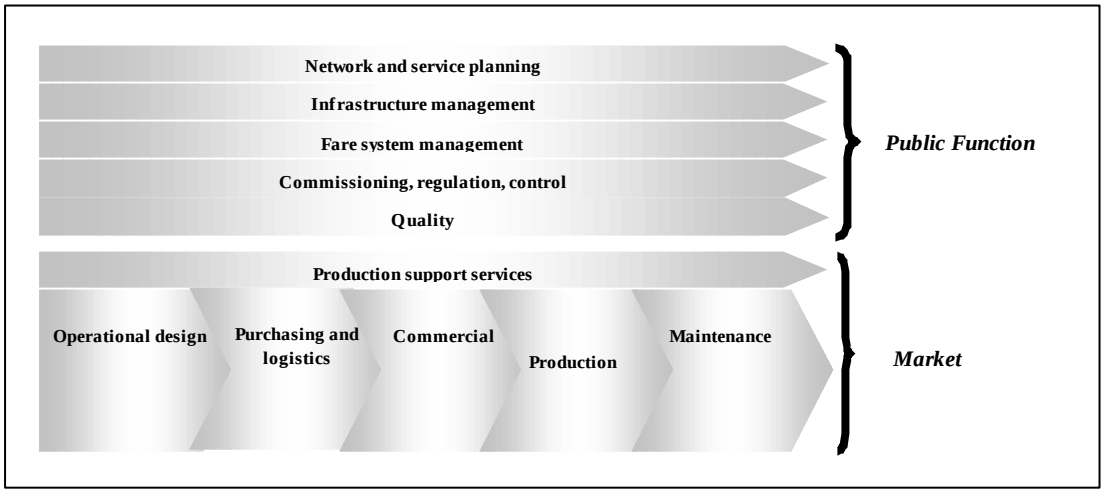
In designing the new transport system, the action of the City Council has perceived the policies dictated by the national reform of the sector that fixed the stages toward the overcoming of the monopolistic arrangements by envisaging transformation of public companies to limited companies by 31 December 2000 and entrusting of services through tender procedures by 31 December 2003.

In this context the City Council Administration, aware of the opportunities and possible risks following application of the national reform, has elaborated, in the light of a precise strategic view, a process of transformation that allows the chance to be taken to make the public transport service suitable to the needs of transport of the city, guiding and exploiting its own companies toward the opening up of the market of competition. The political level cannot but

follow both these objectives, given the dual role of owner-commissioner that on the one hand must guarantee a suitable level of services to citizens and on the other must protect the company reality that plays an important role from the point of view of the patrimony, economy, occupation and not least makes up a resource for the entire city.

The process of reform also introduces a change of roles for the institutional subject inside the public transport system redefining the responsibilities of strict public competence and establishing a contextual separation of competence to reserve for the market.

The principle of separation between public function of regulation and entrepreneurial production of services is the basis of the set up of the new Roman transport model which has been discussed for some time and that today takes on its definitive configuration.



The path followed by the administration envisages overcoming of the logic linked to the delivery of a public transport system through a rethinking of the role of public subject that has carried out up until today the functions of production and planning of services for interposition through companies it owns; in the future model, which will have to be characterised by a breaking up of the present concept of public service, the administration will have to focus on the activities afferent to the public function, that is those activities that are able to generate "public added value" to services and thus to society at large.

Analysis of the process of planning-production-control of service allows the highlighting of those functions and activities particularly important to the ends of the effective functioning of the entire transport system and that stand out because in their carrying out of the objectives of the entrepreneurial subject they may not coincide with the needs of transport of citizens.

In particular, in carrying out the function of network and service planning, infrastructure management, fare system management, development of the quality of services, the industrial policies of the company producing the service may not coincide with the optimal situation for the whole system and for citizens.

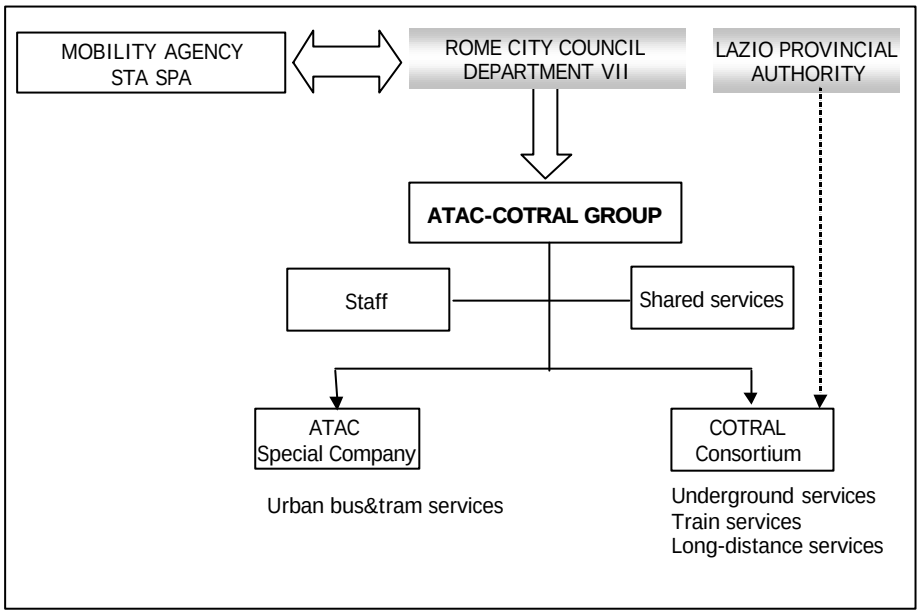
The ensemble of these activities, together with the functions of policy and control of the system, make up the "public function" of which, in the new model, the political subject who carries out the different activities through the existing city council structures and new organs of support to be set up with resources at present allocated to the companies, will be the owners.

The new public transport model will be structured to start from the public function giving more voice to politics and to citizens while the productive phase of the service will be reserved for the market that the administration will turn to using tender procedures.

THE NEW ORGANISATIONAL MODEL

The organisational and institutional model of public transport before the transformation process was strongly based on the structure of the two companies that proceeded in these years on the road of integration.

The system resulted integrated both horizontally and vertically: the public companies of Rome, Atac and Cotral, shared the apex and numerous staff structures, making up the largest management subject of public transport in Italy and one of the largest in Europe.

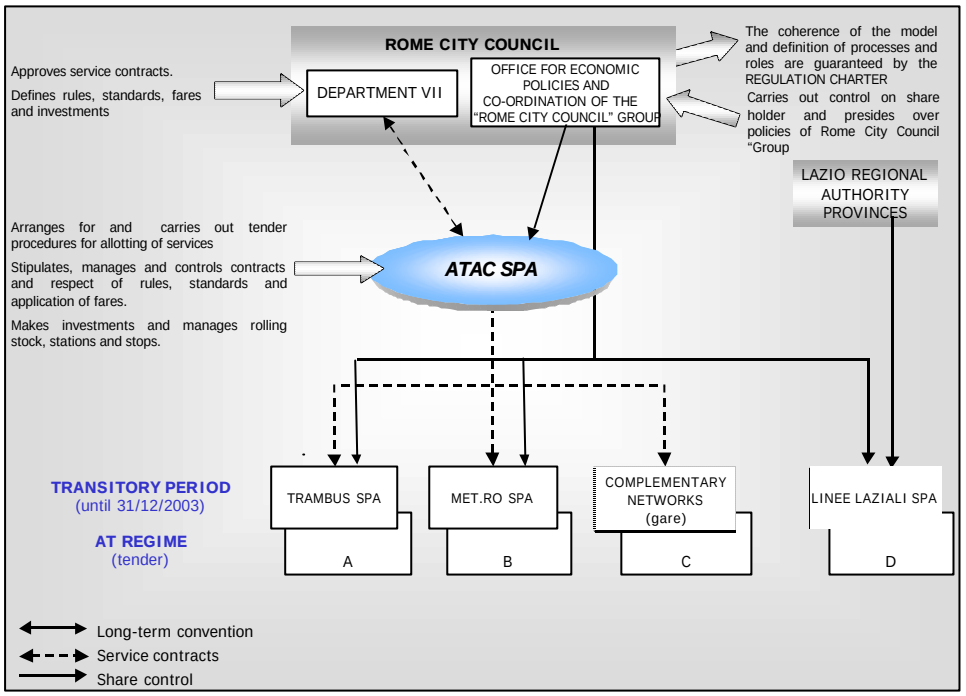


The complexity of the reorganisation programme of the transport system originated mainly from the high degree of integration and interdependence of the different components of the system:

- Department VII, a city council structure responsible for programming and control of transport in the area of planning approved by the administration and the Regional authority;
- Atac and Cotral, entrusted with management of the PT services;
- The transport companies (Sta S.p.A.), entrusted with wide functions of support to administration in planning and complementary services for public transport and mobility.

The new model is based on a new top management structure that takes on the functions of support to planning, programming, control and co-ordination of transport companies and takes care of development of the transport and services network. The leading company will also be owner of the infrastructures and the revenues from traffic. The new top management structure will also have the task of carrying out the tender procedures and of developing the offer by means of this new instrument. The production of tram and underground railway

services will be managed, when at regime, by the company that results from the tender procedures.



At a first level, that may be defined political, there is the Office for Economic Policies and co-ordination of the "Rome City Council Group" and Department VII – Transport Policies. The Office for Economic-Policies plays the role of shareholder and presides, from the "group" point of view, over the policies of the different companies owned by the Rome City Council while Department VII more appropriately takes care of the tasks of policy and control of the public transport system and mobility. In particular Department VII defines the rules, standards of service, fares and the investments in the sector. The Department will also have a function of surveillance and check over the activation of programmes and general objectives.

At a second level, of planning and organisation of services, there is the company that directs the PT, which stipulates, manages and controls service contracts and respect of rules, gives life to integrated fare policies, is owner of the means of transport and the infrastructures. The directing company also manages the rolling stock, the stations and the stops and implements the programmed investments. Transfer to the directing company of assets instrumental to production of services facilitates, in the future scenario of competition, the alternating of operators.

The directing company, set up in the form of a joint-stock company through separation and transformation of the Atac special company into Atac S.p.A. (directing company) and Trambus S.p.A. (service production company), is wholly with public capital and represents an instrumental body of the Rome City Council. The relations between the Directing Company and the Rome City Council are regulated by a long-term convention for delegation of functions that fixes the policies of activities and quantifies the compensation also taking into account volumes of revenues from traffic that come to it from fare proceeds earned from the selling of tickets to travel of which the company is owner.

The third level is that of production of services that sees, in the transitory period, the presence of companies with aims deriving from the process of transformation: Trambus S.p.A. for bus and tramway services in the territory of the City of Rome, Met.Ro S.p.A. for underground railway and railway services, and Linee Laziali S.p.A. for long-distance bus services. At regime the companies deriving from the process of transformation will have to compete with other operators for allotment of services in the territory of Rome.

The relations between the production companies and the directing company will be regulated by the appropriate service contracts while the companies and the City Council will be linked by a shareholding relationship. In this way the new model overcomes the basic ambiguities that characterise the dual role of the City Council (first shareholder and client) in relations with the service administrators, separating management of contracts from the relationship of shareholding control.

All economic flows of the new system come to the Directing Company: it is owner of the revenues from traffic and allots to the production companies the compensation from the service contract.

The service contract between the directing company and the production companies is of *gross cost* type, in which the directing company allots compensation to cover the presumed unit cost per kilometre offered guaranteeing the operator an adequate margin for remuneration of the capital invested.

Through *gross cost* contracts the production companies take on only the industrial risks and have no responsibility for revenues which are down to the directing company. The service administrators focus on production, maximising efficiency and productivity in such a way as to increase management profitability, with only one commitment to respect the quality standards defined contractually. The commercial risk is, however, entirely down to the directing company, which through integrated mobility policies, development of the network and implementation of marketing strategies pursues the objective of maximising the number of passengers transported. The interest of the administrator, who maintains the important contact with users, toward improvement of the effectiveness of the service is guaranteed inserting incentive systems into *gross cost* contracts linked , for instance, to the increase of passengers or to improvement of customer satisfaction.

In brief, *gross cost* contracts envisage a sharing of risks between the contractual parties: the industrial one is down to the production company, with incentives toward objectives of efficiency, while the commercial one is down to the directing company that has the possibility of changing the effectiveness of the services through integrated mobility, transport and fare policies in support of the public means of transport.

Valeria MANFREDA
Transport Department of Rome
Comune di Roma

The service agreement.

Comune di Roma
Dipartimento VII
Via Capitan Bavastro, 94
00154 Roma
Italy

DIPARTIMENTO VII
Politiche della Mobilità

COMUNE DI ROMA

THE SERVICE AGREEMENT

(Summary – Valeria Manfreda –Transport Department of Rome)

Within the restructuring process brought forward by the Municipal Administration aimed at local transport systems, the Service Agreement has played an essential role in increasing the financial performance and the quality of the services of transport operators.

The object of this presentation is to illustrate the benefits of introducing the Service Agreement, as a means of management definition, planning, and control. More specifically, the Service Agreement has been bringing:

- Service cost reduction
- Increase in production and a reduction in cost per kilometre
- Increase in traffic revenues
- Increased service quality and client satisfaction thanks to the introduction of a monitoring system.

The good performances achieved by all the transport operators, in terms of effectiveness and efficiency, have allowed the metropolitan transport system of Rome to be self sustainable more than in the past: this resulted in a lighter financial burden on the balance sheet of the Council and on the taxpayers' money.

The structure of the Service Agreements between the Council and the surface transport bus and rail transport operators is articulated as follows:

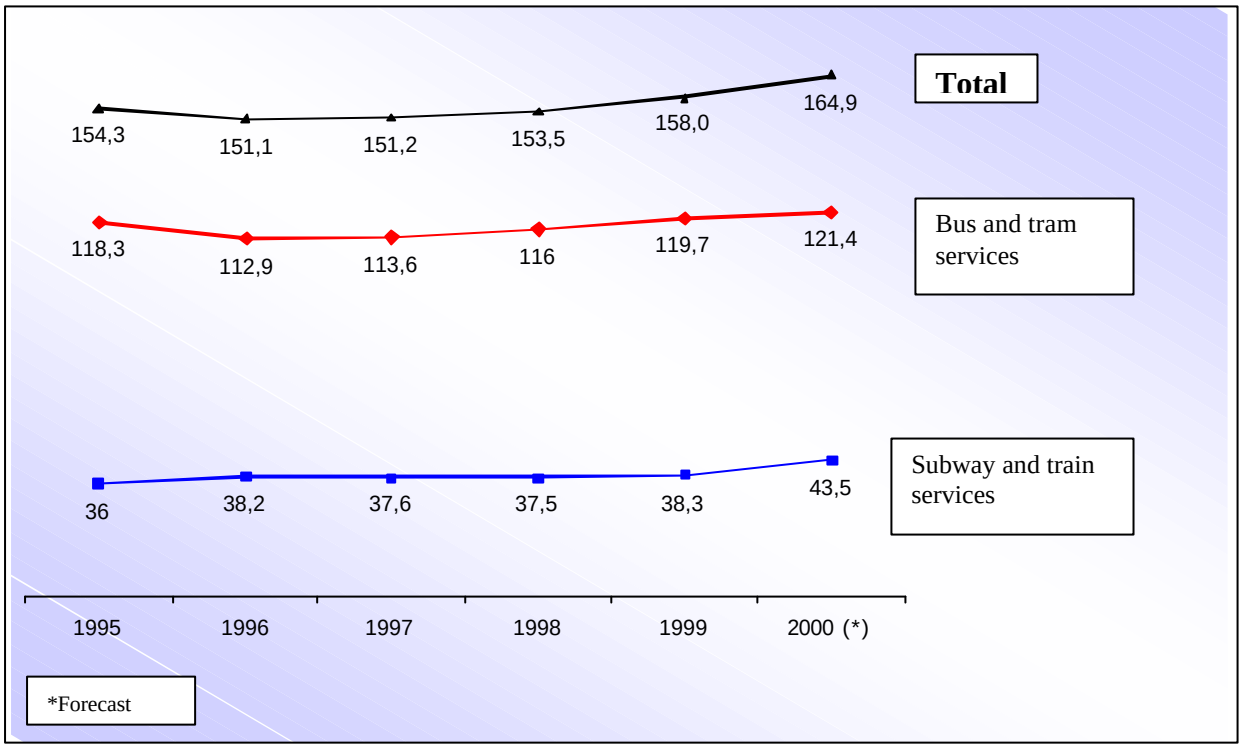
Part one	**Object and length**
Part two	**Objectives**
Part three	**Responsibilities attributable to the parties**
Part four	**Monitoring system**

Part two defines objectives in terms of effectiveness and efficiency for the service. These are broadly articulated in three categories:

1. **Service objectives** (increase in vehicles / km)
2. **Efficiency objectives** (reduction in cost per km)
3. **Effectiveness objectives** (no. of passengers transported)

Service objectives

Figure 1 – Service production, 1995-2001



Starting from 1995, for the subway services, and from 1996, for the bus and tram services, production has been increasing constantly. With regards to the bus and tram services, the strategic objective of 120 million vehicles/km will be reached by the end of 2000. Such a goal is of fundamental importance for the general development of public transport in Rome. Starting next year the City of Rome will be able to count on additional services of 30 million vehicles/km. Such services will be awarded by way of tender and attributed 50% by the Local Authority and 50% by ATAC . The first share of additional services (7.5 million vehicles/km) is currently being tendered by the Local Authority, whereas the other three shares will be awarded at the beginning of 2001. As such, Rome is the first Metropolitan Area in Italy to have tendered its services. It means that Rome will strengthen the service in the City's suburbs and outer-suburbs. This will allow, together with the restructuring of the City's urban network, to satisfy the citizens' demand for mobility with an adequate service supply.
It is important to underline at this point how the bulk of the output in the year 1999 is being kept at a high level in spite of the fact that around 800 building sites were opened for the jubilee celebrations

Efficiency Objectives

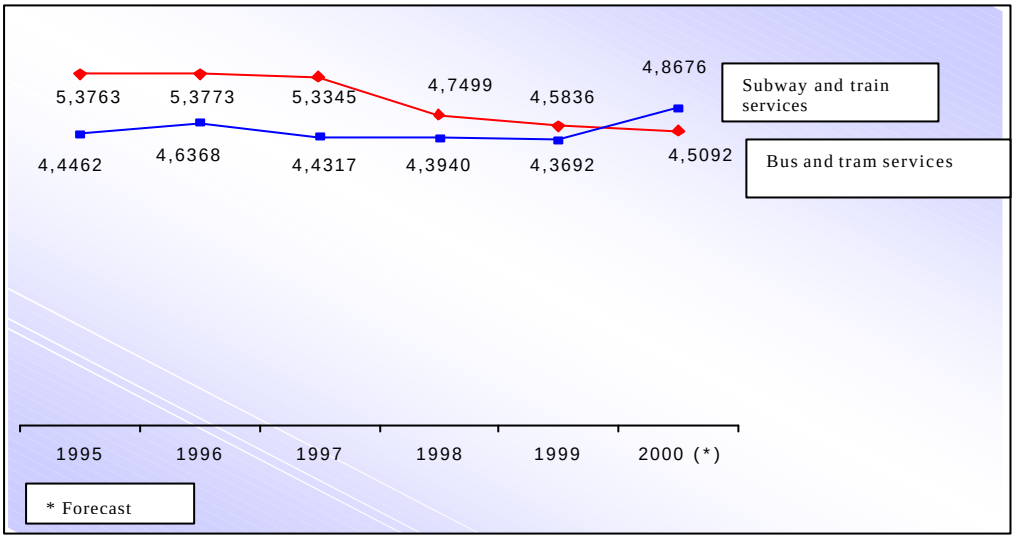
The restructuring and reorganisation plan, and the introduction of the Service Agreement, have together contributed in improving the overall efficiency levels of all of the transport operators.

The trend in cost per kilometre indicates that better efficiency of company today allows to produce more service at a lower unit cost.

With reference to bus services, costs per kilometre have been decreasing consistently between 1995 and 2000 (over 16%). In this period such costs have decreased by 0,8779 EURO from

5,3711 EURO in 1995, to 4,5086 EURO forecasted for 2000.

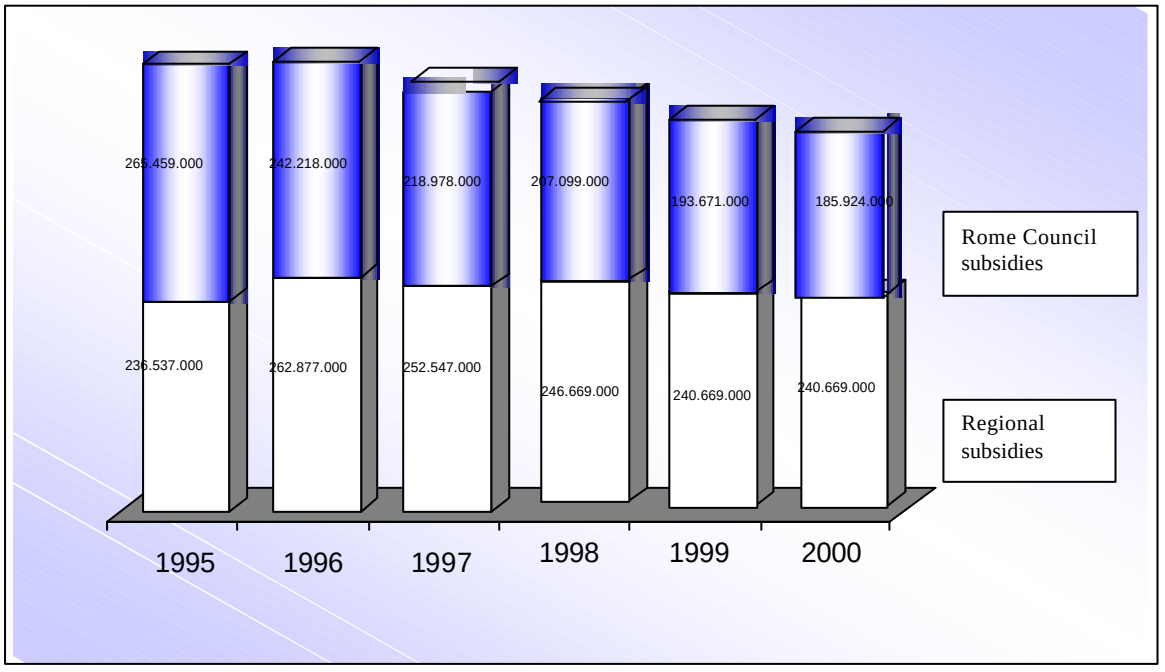
Figure 2 – Cost per kilometre; 1995 - 2000



With reference to underground services such trend is also on a positive trail even if it is not quite at the level of bus services indicated above. More specifically, services produced have remained stable rising only 2% in the period 1995 to 1999. In 2000, some organizational issues, linked to the formation and implementation of the new model of management, have temporarily influenced the level of costs for such services. Differently, costs in 2001 should predictably return to the levels registered in 1999.

Figure 3 – Regional and Council subsidies transferred to the public transport system , 1995-2000 (Euro)

The work carried by the local administration together with the transport operators has allowed



to

reduce the Council subsidies to the local transport system by some 27% (- 71.787.509 EURO) from 1995 to 1999. If we were to include the forseable budgeted figure for 2000, such decrease would reach a level of -30% (-79.534.362 EURO); -36% (-96.060.983 EURO) for the 2001

forecast.

Up to now we have illustrated some of the macro-objectives that the service contract establishes as priorities and that the company have respected. But they are not unique.
The development of the Quality of the Services forms a central topic confronted in the contract through the provision of a study system of the quality given and received.

The company, undertakes to issue the Local Public Transport Service Card, (this is how the contract is established), a document that can be found at the underground stations and the ticket agencies that defines the standard of services guaranteed to the users and will form the main reference point for the monitoring of the quality given.

It is a sort of promise (as written on the card itself), the companies supply the public service declaring to the people the annual commitments they have taken onboard to improve the quality of service.

The factors that identify the quality of service are trust, safety, the vehicles, comfort, information and protecting the environment.

Under the heading "MEANS OF TRANSPORT" the age of the vehicle is shown as a measurement of quality. The age of the vehicle in the year 2000 which is written on the card, would lead to immediate demolition thanks to the forecast to acquire 32 new trams to add to existing 142 trams
And moreover it is estimated on the 2000 card thanks to a European tender in 2000 that forecasts to start in 2001 renewing 1/3rd of the company fleet by acquiring more modern vehicles and 54 electric buses to add to the existing 43 electric buses.
It is interesting to examine the quotes from "PROTECTING THE ENVIRONMENT" that shows the percentage of the total of low pollution and electrical vehicles which the transport companies will use during the year.
At this point it needs to be said that the company commitment in all aspects to the environment is one of the most innovative aspects of the Transport Policy in Rome and is included in the Service Card for the year 2000, which forecasts the achievement of a project called "MOVING AROUND THE HISTORIC CENTRE OF ROME WITH POLLUTION AT ZERO LEVEL". It foresees the realisation of a fleet of trams in the centre using 18 metre vehicles able to adapt to overhead lines on the outskirts of the city or by battery on the borders of the historic centre (to eliminate the visibility of the overhead lines in the historic area of Rome). The implementation of this transport system will therefore guarantee the reduction to zero of gas emissions in the historic centre and on the main roads leading to the suburbs. (An investment about 1.400mld)

More than just defining the standard of quality supplied through the service card it is necessary to also define the standard of quality perceived by the users to be the level of quality received by the clients from the company.

Coherently on the subject of the Service Card the company proposes to prepare a method for the study of the quality given measured against a given time, to be exact every 6 months, a synthetic table of satisfaction (a table of customer satisfaction) from which it is possible to follow the trends in time.

The index calculated on a scale of 1 to 100 is a 2 figure number that represents the complete score, or rather a summary of the total estimated data by the client on the service with regards to.

effectiveness of the service (the ability to reach the destination, the time of each journey, etc, to have trust both in and out of rush hour time).

the means of transport (the external aspect of the vehicle, the legibility of the route/direction and number noise level etc…)
comfort, (the ease of finding a place to sit, the comfort of the seats etc..)
personnel (the type of driver, politeness etc..)
location of bus stops (in relation to the home)
charges (relating quality and price)
names of the journeys, (ability to use the automatic ticket machines) emergency management
information (clear concise information about changes to the quality of service supplied safety etc…)

The trend of the index whether for the bus service or underground system is positive

ATAC	*1998*	*1999*	*2000 (half –year)*
I.C.S.	*45,5*	*46*	*49*

METROFERRO	*1998*	*1999*	*2000 (half –year)*
I.C.S.	*52*	*52*	*56*

The objective of monitoring is not only to measure the level of client satisfaction but also to continuously study the rise in the new expectations and needs and to carry out an estimated valuation for the correct allocation of resources and investments in quality, bringing closer the priorities of commitments towards the aspects of the service considered by the clients to be the most problematic.

And finally I want to say that the contract introduces an approved system connected to the quality control of the service and a system linked to improving the index of customer satisfaction. The system of incentives and approval forecast a provision of 0,1291 EURO/Km for every non-standard vehicle in respect of the parameters of the regularity and frequency defined by the Service Card while for the potential improvement of the index of customer satisfaction an annual incentive has been anticipated for the company up to 4 billion.

CONCLUSION
It is important to underline the process of rebuilding , which makes use of the very structure and society in which, thanks also to the new implementation of regulations between the Local Authority of Rome and the companies, have introduced into their agencies new methods of management aimed at on the one hand the containment of costs while on the other hand the increase in the offers of transport and the improvement in quality.

This has helped to bring the Companies gradually from a dominant monopolistic position to one of “regulated” market competition.

Björn DALBORG
Senior Advisor
AB Storstockholms Lokaltrafik

Contracts to move from monopoly to competition.

AB Storstockholms Lokaltrafik
12080 Stockholms

CONTRACTS:
TO MOVE FROM MONOPOLY TO COMPETITION

Bjorn Dalborg
Senior Advisor
AB Storstockholms Lokaltrafik (SL)

The main objectives of the introduction of contracts in the Stockholm public transport sector were:
- The development of public transport
- A more efficient use of financial resources
- A more efficient management

The Swedish model for organising public transport relies on the existence of transport authorities in each county. The Public Transport Authority (PTA) publishes calls for tender to provide services. Operators from any country can put in a bid; all are treated equally. The authority selects the most advantageous bid. Contracts of limited duration are entered into with the winning operator. The authority is responsible for overseeing the implementation of the contract. The authority and the operator carry out the development of service levels jointly.

Introduction of contracts in Stockholm
SL which, at the time, was both operator and transport authority, first introduced contracts in 1990. The main objective was to achieve better use of resources at lower cost. Currently, stress is laid on quality from the customers' point of view, and the need to attract more passengers.

What has been achieved?
- SL has been totally restructured,
- All the services have been awarded subsequent to international calls for tender
- All operational branches of SL have been outsourced
- Increased attention has been given to customers' needs
- Emergence of new organisational requirements

Philosophy underlying the introduction of competitive conditions
- Customer always in Focus
- Reliable provision of services
- Staff is a strategic resource
- Procurement functions
- Objectivity and neutrality in tendering
- Establishment of conditions allowing long-term competition conditions

Objectives of SL as Transport Authority
- Establishing conditions to increase the attractiveness of public transport in the long term
- Manage the integrated public transport system
- Co-ordinate operators' activities
- Allocate services after the call for bids
- Plan and maintain infrastructure (stations etc.)
- ensure that competitive conditions prevail in the medium and long term

Operators' tasks

- Plan and manage a high quality service
- Actively promote the use of public transport
- Possess a licence for rail services (granted by the railroad supervisory services)
- Lease and maintain rolling stock (for rail services)
- Own and renew the bus fleet
- Employ and train staff

The new philosophy for public transport in Stockholm: passenger approach

- Increased use should be to the advantage of the operator
- Higher quality should be to the advantage of the operator
- Proposed management of quality and organisation are the two main elements to be taken into consideration in assessing bids
- Staff must be made aware of their duties
- Competitiveness is not a panacea. It is not always the best solution
- It is necessary to develop long term relations with the operators, and make the best use of existing contracts

Passenger approach: monitoring implementation of the contract

- Greater attention to quality
- Random checks by SL of quality provided by operators
- Internal controls by operators
- Management of complaints and satisfaction of passengers
- Partnership

Staff management

- Transfert of employment according to the law
- Maintenance of salary levels
- Programme to check for use of drugs
- Training
- Security of employment

Results of this policy

- Costs of services reduced by 25%
- 18% increase in service levels

Current objectives

- Increase in the use of public transport and improvement of quality of service to increase operator's profits
- Operators should find locally the means to improve public transport use
- Introduction of methods to afford greater importance to the assessment of quality-related factors and the comparison of qualitative aspects in tenders

Key factors influencing success

- National, institutional and legislative framework
- Strong political commitment at local level
- Priority given passengers' interests
- Competition enhances the development of public transport
- Credibility, neutrality and transparency

- Long term relations between the operator and the PTA

Competition has brought about many advantages to customers

- Increased service levels
- Quality improvement
- Increased patronage
- Reduction of costs
- Increased value for taxpayers' money

Lessons drawn by SL

- Gross cost contracts and quality incentive schemes reduced costs considerably, but did not take sufficiently into account quality aspects and customers' needs
- Generally speaking, operators do not attach sufficient importance to the management of quality
- Public transport has been completely opened up to international tendering
- Active dialogue with the operators and bidding companies is essential.

Jörg LUNKENHEIMER
Leiter Shareholder Relations
Rhein-Main-Verkehrsverbund

Contracts for regional rail services.

Rhein-Main-Verkehrsverbund
Alte Bleiche 5
65719 Hofheim
Germany

Contracts for regional rail services

Jorg Lunkenheimer
Chief of Shareholder Relations
RMV

Presentation of RMV

RMV is the regional public transport authority for the Frankfurt am Main metropolitan area. RMV extends over 15 counties and 11 towns representing a total surface area of 14,000 km² with a total population of 5 million. 147 companies operating 43 railway lines, 400 stations and 780 bus routes provide public transport.

There are three levels in the German model for public transport:
- Definition of the general policy: Federal State, counties and towns
- Network management: RMV for regional travel (regional buses, and rail links)
- Transport supply: transport companies

RMV's responsibilities:
- Planning of services
  - Integrated timetables
  - Regional bus services
  - Public transport plan

- Management of transport services
  - Rail
  - Bus
  - Ordering + contracting

- Marketing
  - Fares policy
  - Communication
  - Quality management
  - Innovation

- Controlling
  - Budget
  - Allocation of revenue

Current context
- European, federal and regional regulations applied
- Gradual introduction of competition
- Aims of competition
  - Development of high quality integrated public transport services
  - Reduction of public subsidies

- Introduction of competition by clustering of lines awarded by open tender.

The contract covers the following points:

- Service
  - Precise description of service to be provided and required performance
  - Process of ordering the public transport services
- Fares policy
  - Accounting of transport services
  - Cost and method of financing
- Quality
  - Setting of quality standards
  - Assessment of quality provided

Description of contractual indicators

- Services
  - Timetables
  - Vehicles/km
  - Capacity

- Quality
  - Vehicle (accessibility, air conditioning, seats, information, luggage space)
  - Stations (height of platform and accessibility, waiting rooms, information, lighting)
  - Railway infrastructure (signals, speed etc.)
  - Quality of service (punctuality, easy connections, train configuration, cleanliness and stations, staff attitude towards passengers, maintenance, fighting fare-cheating, safety, passenger information)

Main types of contracts

- Contracts for two lines with DB Netz and DB Regio
- Gross cost contracts with financial incentives
  - Purchase of service at cost levels set out in the contract
  - Incentive scheme
- Monetary evaluation of quality provided (comparison of quality required and quality delivered)

Francesc VENTURA i TEIXIDOR
Director General
Autoritat del Transport Metropolita

Fare integration contracts.

Autoritat del Transport Metropolita
Muntaner, 315-321
08021 Barcelona
Spain

FARE INTEGRATION CONTRACTS

Francesc Ventura i Teixidor – Director General
ATM Barcelona

The ATM is an interauthority consortium which was formed in 1997 with the aim of improving coordination of the metropolitan collective public transport system in the metropolitan region of Barcelona (MRB). This consortium's membership consists of the Generalitat de Catalunya (regional government), the Barcelona City Council (local government) and the Entitat Metropolitana del Transport (EMT, an entity formed by 18 boroughs in the central area of the metropolitan region). Our region has a population of approximately 4.2 million inhabitants and, each year, 726.5 million trips are made using public transport.

1. Operators in the metropolitan region of Barcelona (the services to be integrated)

Nearly collective public transport operators operate within the MRB, offering services both by rail and by road, in the forms currently available in the region: suburban railway, metro and bus. These different operators can be grouped as follows:

- **Transports Metropolitans de Barcelona (TMB):** the company that operates the metro and bus services in the city of Barcelona.
- **Ferrocarrils de la Generalitat de Catalunya (FGC):** an operating company that belongs to the regional government. It offers suburban railway and metro services (the latter within the city of Barcelona).
- **Rodalies Renfe:** an operating company that belongs to the Central Government. It offers local railway services.
- **Interurban buses:** private operators which offer an interurban public transport service by road within the MRB.
- **Urban buses:** private operators which offer an urban public transport service by road within the MRB.

2. Current range of tickets in the metropolitan region of Barcelona (the fare systems to be integrated)

There is a central area with a flat fare composed of 13 boroughs (this includes Barcelona and the closest boroughs). Within this area, the current ticket structure is the following:

- **Single ticket:** single trip, monoperator.
- **10-trip ticket.**
- **T-10x2 Ticket:** bus+metro combinations
- **T-50/30 Ticket:** 50 trips in 30 days.
- **T-Mes:** monthly ticket.
- **T-Dia:** daily ticket.

In addition to the range of tickets available in the flat fare area, there are other tickets issued by certain operators such as quarterly passes, annual passes, tourist tickets, etc. Outside of the central area, each operator has its own system.

3. Fare integration activities within the MRB from 1992 to 2000 (fare integration is a process)

The fare integration process has been a long process which started about eight years ago. Over this period, a series of integrative activities have taken place which have prepared the system for full fare integration by the year 2001.

- **1993:** Implementation of the T-Mes and T-Dia tickets.
- **1997:** Formation of the ATM.
- **1998:** Metro-urban FGC fare integration with the T-10 and T-50. Extension of the validity of the T-Mes and T-Dia tickets in certain segments of the FGC's network.
- **1999:** New T-10x2 ticket. Harmonisation of the T-10 (bus) and T-10 (metro) tickets. Implementation of monthly Rail-Metro-FGC passes in the 2nd ring.
- **2000:** Integration of Rodalies Renfe in the central area's fare structure. Extension of the scope of use of the T-50 to buses.

4. Levels of contractual relationship between the different operators and the ATM

The ATM has established different contractual relationships with the transport operators:

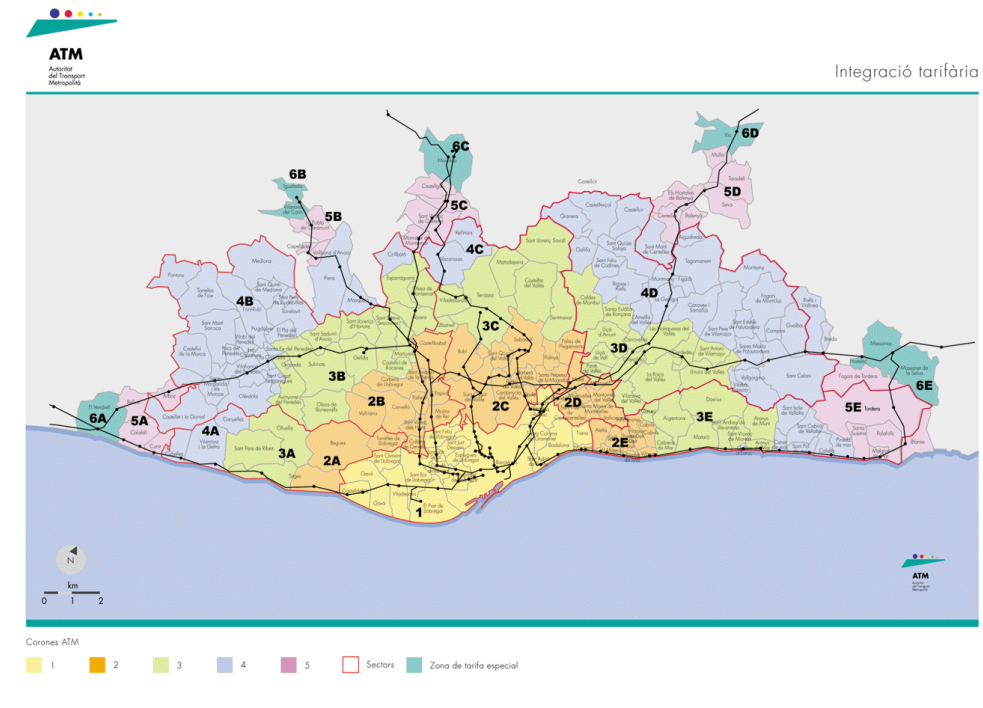
- **With the public operators (TMB, FGC) within its field of competence:** The ATM has signed programme contracts detailing the coverage of the operating deficit, investments in maintenance and replacement, and borrowing. The operators' obligations set forth in the programme contracts consist of a series of quality and service requirements that they must fulfil during the contract's term: coverage coefficients, quality coefficients, supply and demand undertakings, fare undertakings, etc.
- **With subsidised operators:** some road service companies operate under a concession system with subsidies to cover the deficit generated. In this case too, there are obligations such as supply and demand undertakings, coverage coefficients, etc.
- **With non-subsidised operators:** other bus operators offer a service under a pure concession system, without any subsidies.
- **With Rodalies Renfe:** Programme Contract with the Central Government. There is a Cooperation Agreement signed in July 1999, which provides for the integration of Renfe's services in the ATM's fare system. The following clauses are taken from the text of this agreement.

5. Fare integration project

During the year 2000, the ATM has drawn up and approved the Fare Integration Project for the entire MRB, and which will become effective on 1 January 2001.

- **Defining principles**
  - Contribute towards positioning metropolitan transport as the most attractive system for current and potential users.
  - A fare system easily understood and based on principles which are acceptable to the public.
  - Metropolitan transport services perceived as an integrated and unified network.

- **Zoning**
  - The territory has been divided into 6 rings and different sectors.



- **Range of integrated tickets (the new tickets)**
  - **T-10:** A ticket that entitles the holder to make 10 integrated trips.
  - **T-50/30:** A ticket that entitles the holder to make 50 integrated trips.
  - **T-Mes:** Entitles the holder to make an unlimited number of trips in 30 days.
  - **T-Dia:** Entitles the holder to make an unlimited number of trips in 1 day.

6. Contractual relationship with the operators after integration

Acceptance of the system is based on the agreement between the ATM and the operators. Approval of the new tickets, their price and the zoning have been the last points of discussion within the process of drawing up the Fare Integration Project. The basic issues where there has been most disagreement have been the distribution of integrated fare revenues between the different operators and homogenisation of the ticket sale and validation systems installed by the different operators, but the following points have been agreed:

- The integrated tickets are ATM tickets.
- The ATM receives the revenues from the sale of tickets.
- A series of deductions are made corresponding to printing, distribution and selling costs, rejections, audits and usage surveys/counts.
- A fare Integration Monitoring Commission is created, which establishes the criteria for distributing revenues.
- The revenues distribution and clearance house will apply the criteria stated in the previous point on a monthly basis.

It is indispensable to have a ticket sale and validation system that is able to read the new integrated tickets in order to feed information to the clearance house. To supplement this information, it is planned to install an Operation Assistance Service (Servei d'Ajuda a l'Explotació - SAE) in all buses in the metropolitan region which will increase the information on ticket validations and which will help improve coordination of the different services.

With the fare integration process, the contractual relationships between the ATM and the different operators will be modified as follows:

- **Operators with a Programme Contract (TMB and FGC):** in this case, fare integration will give rise to a decrease in the average weighted fare. If there is no significant increase in the number of passengers, it will be very difficult to maintain the committed coverage coefficients. The Programme Contract already has an article providing for the possible implementation of new integrated tickets issued by the ATM. The uncertainty with respect to the integration's impact on the operators' deficits has been one of the reasons why the fare integration process has made to coincide with the last year of force of the present programme contracts.

- **Subsidised operators:** the situation is fairly similar to the previous case. It will be difficult to maintain the deficit coverage targets. It will be necessary to regulate this new framework in the form of schedules to the existing contracts, providing for compensations.

- **Non-subsidised operators:** a standard contract has been negotiated with the sector's employers' association (FECAV) which provides for compensation for the losses that may arise as a result of the decrease in the average weighted fare.

- **Rodalies Renfe:** the Cooperation Agreement signed with Rodalies Renfe in July 1999 states the basic aspects of the cooperation between the ATM and Renfe as regards integrating Rodalies' services. This agreement will require the addition of new articles addressing the changes in the situation after fare integration.

- **Tram:** within the bidding conditions for the tram, it is provided that the operator of the new Barcelona tram network must accept the fare system in force at the time of starting operation of the new mode. There is a concession scheme subsidising the difference between the technical fare and revenues received from passengers (the system's average weighted fare).

Given the importance of obtaining reliable information from the operators within a framework of fare integration, the ATM has decided to bear the cost of the necessary technologies to make this possible. Thus, technology investments have been made in Rodalies Renfe and bids have been invited for subsidising the cost of adapting the other operators' new ticket sale and validation systems.

There is a final contractual level related with fare integration. The boroughs outside of the EMT (18 boroughs within the MRB) operating an urban transport system may join the new fare system by means of the so-called System Membership Agreement. In this case, the cost incurred by integration is not covered by the ATM but by the local authority operating the service.

7. Conclusions

The implementation of a new integrated fare system for the entire Metropolitan Region of Barcelona and for all public transport operators is a complex project that has required analysing each situation in accordance with the precedents created by very different concession processes and agreements.

One factor that has helped homogenise in part these scenarios is the identification of a value for remunerating the route provided, irrespective of who the operator is (the system's net average weighted fare).

With the agreement, accepted by all parties, to create revenue distribution rules based on modal chains and in accordance with this TMP, it is now possible to devise a supplementary compensation system that helps reduce any possible imbalances between territories and/or companies.

Finally, the use of integrated tickets by the different operators is given contractual form by articulating the technological, service and financial rights and obligations that we have mentioned above.

In its early stages, the system must be open enough to be able to introduce whatever modifications may be generated by the progressive inclusion of new operators and the changes that may take place in collective public transport users' mobility habits.

Carlos CRISTÓBAL-PINTO
Jefe del area de estudios y planification
Consorcio de Transportes de Madrid

Contracts for financing transport infrastructure.

Consorcio de Transportes de Madrid
Plaza del Descubridor Diego de Ordas 3
28003 Madrid
Spain

CONTRACTS FOR FINANCING TRANSPORT INFRASTRUCTURE: CASE OF THE *AVENIDA DE AMÉRICA* INTERCHANGE IN MADRID

Jesús RODRÍGUEZ MOLINA, *Technical Director*
Carlos CRISTÓBAL PINTO, *Head of Studies and Planning Department*
Javier ALDECOA MARTÍNEZ-CONDE, *Studies and Planning Department*

Madrid Regional Transport Consortium (Consorcio Regional de Transportes de Madrid)
Plaza Descubridor Diego de Ordás 3, Madrid 28003, Spain
Tel.: 34 91 580 45 31 Fax: 34 91 580 46 34 e-mail: estudios@ctm-comadrid.com

1. INTRODUCTION: THE IMPORTANCE OF BUSES IN MADRID METROPOLITAN MOBILITY

Madrid, in the same way as the other major metropolises as in Western Europe, is immersed in a process of decentralisation, dispersion and fragmentation of its metropolitan fringe. This process first appeared 20 years ago, but over the past 10 years has taken on with a vengeance.

The city of Madrid reached its maximum population level in 1975, with 3,228,057 inhabitants (Table 1), with almost 75% of the total population in the region. After this point population began to dwindle in the great central city with families migrating to the urban outskirts in search of a better quality of living, apparent in larger homes and higher quality residential environments, more green zones and less density. Over a twenty-year period Madrid city lost more than 10% of its population, so that by 1996 the figure had fallen to 2,866,850 inhabitants and its relative weight in the region dropped to 57.1%.

Table 1. Evolution of population by major spatial areas

Ring	Township	1975		1996	
Madrid City	1	3,228,057	(74.7%)	2,866,850	(57.1%)
Metropolitan Ring	49	929,099	(21.5%)	1,913,804	(38.1%)
Regional Ring	129	162,748	(3.8%)	241,636	(4.8%)
Regional total	**179**	**4,319,904**	**(100%)**	**5,022,290**	**(100%)**

Over a parallel period, Metropolitan Ring continued to record high levels of population growth, absorbing the migrations from the central city districts and also the inhabitants migrating from outside the region, its population totalling almost two million inhabitants. In the last decade this high growth rate in the metropolitan ring tailed off, apparently to be absorbed by the outermost regional ring area.

Madrid's metropolitan public transport network depends on both the suburban commuter rail network and the interurban bus network. There has been a spectacular rise in the use of suburban commuter rail services over the past 12 years, its 151.8% recorded increase well exceeding the 110.8% growth recorded by interurban buses (Table 2).

However, absolute growth figures point to an increase of 133.7 million bus passengers/year, whereas increase in suburban commuter rail amounted to 90.6 million passengers/year. These figures validate the actions taken to improve both networks.

Table 2: Variation in Metropolitan Mobility Using Public Transport: 1986-1999

	PASSENGERS 1986 (Million)	PASSENGERS 1999 (Million)	1986-1999 VARIATION	
			Million	Percentage
Suburban commuter rail	59.7	150.3	+90.6	+151.8 %
Interurban bus	120.7	254.4	+133.7	+110.8 %
Total	180.4	404.7	+224.3	+124.3 %

The interurban bus network is operated by 33 private companies on a concession basis granted by the Madrid Regional Transport Consortium (CRTM) and belongs to an extremely dynamic sector, both in Madrid and in Spain in general.

The eastern corridor forms one of the most important corridors in the Madrid metropolitan area, it corresponds to National Highway N-II and is home to almost half a million inhabitants. For many years, operation of the metropolitan buses along this corridor depended on the Avenida de América Metro Station, at which four Metro lines converge at a point where the road system starts to penetrate the rim of the Madrid central districts, on the inside of the M-30 inner orbital road.

A major objective of the Regional Transport Consortium is to strengthen metropolitan mobility using public transport modes and one of the actions it has taken to achieve this objective consists of improving metropolitan bus terminals in the city of Madrid. This paper reports on the action taken to provide the bus terminal on the N-II corridor with the right facilities to meet its functional purpose through financing its construction and operation within the framework of public concessions.

2. PUBLIC FUNDING OR PRIVATE FINANCE

The Avenida de América Interchange had been the subject of studies by successive government authorities for the previous twenty years but none had decided to build it. The problems set out in the different studies coincided on such controversial issues as the need to create the interchange at a point with extremely dense traffic throughout the daytime as it constitutes one of the main arteries into the city centre, the fact that the investment called for amounted to some 4,000 million pesetas (24 million euro) - a significant figure for any public purse - plus the fact that the private operators did not come over as particularly keen to participate in financing this type of infrastructure.

Construction of the Moncloa Interchange and its inauguration in 1995 constituted a turning point in interchange policy in the Madrid Region. The opening of this interchange, built with public funds, effectively modified the concept of bus and metro interchange stations in totally congested city centre areas with very little surface space free.

Right from its opening in 1995, demand at the Moncloa Interchange proved spectacular with passenger numbers and services supplied both doubling. This new transport interchange station set off the spread of the "*interchange*" concept amongst metropolitan bus users and it also marked the decision by all authorities to spur the building of transport interchanges on the main points of entry into the city, to improve transfer from interurban bus services to public city transport and thereby increase the use of public transport.

Users subsequently began to demand new interchanges with the same high quality facilities and better transfer possibilities, as the Moncloa Interchange, and both public and private operators confirmed the advantages of this type of interchange and the increase in passenger numbers on their concession services.

A set of circumstances coincided on the N-II corridor that improved the conditions as compared to the Moncloa Interchange, namely the existence of just two interurban bus operators on this corridor instead of the nine at Moncloa and the possibility of cutting down bus departure times by building two independent entry and exit tunnels and this gave rise to a new design of interurban bus interchange stations.

Once the decision had been taken to build the Avenida de América Interchange, the CRTM looked into the possibility of using private capital to finance the scheme. With this in mind, it ran a study analysing the socio-economic benefits involved and all possible sources of income that could make it feasible to attract private financing for the operation, without losing sight at any time of the primary aims of improving interchange conditions between the different transport modes involved, cutting down journey times and increasing public transport demand.

Aerial photograph of Avenida de América in 1997

3. THE DESIGN, COMPETITIVE BIDDING AND CONSTRUCTION PROCESSES FOR THE INTERCHANGE

On **April 7, 1997** the Madrid Regional Transport Consortium and the Madrid City Council signed a collaboration agreement on "**Drawing up a Preliminary Design** for Construction and Operation of a Bus Interchange and Residents' Car Park in Avenida de América". As a result of the agreement, the CRTM drew up the Preliminary Design for the Interchange and carried out an economic analysis on the possibilities of investment recovery.

The proposed operation involved building a transport interchange station for bus and metro services that would be capable of balancing the investment required through payment of a **set charge** on each long-distance intercity bus departure and a **fee** for each city or interurban bus passenger, **plus other income** derived from car parks and shop premises, therefore permitting construction of the interchange without any investment on the part of the Public Administration.

On **September 8, 1997** a collaboration agreement was signed by the Madrid Region Advisory Council for Public Works, Urban Planning and Transport, the CRTM and the Madrid City Council on running an **Open Competitive Bidding Process** for grant of a **Public Concession** for drawing up an execution design project, construction of the scheme and management of the public operating service for the transport interchange and the residents' and short-term car parks at Avenida de América, over a period of twenty-five years for the transport interchange and fifty years for the car parks.

On **December 9, 1997** the public call for tenders was announced in the **Official Madrid Region Gazette**, on the 11th it appeared in the Official European Communities Journal and on the 12th was published in the Official State Gazette in Spain.

January 26, 1998 was the appointed **deadline for submission of tenders**. On **March 30, 1998** the company announced as **successful bidder** of the public competition was Intercambiador de Transportes Avenida de América, S.A., whose shareholders comprised CONTINENTAL AUTO and TRAPSA (bus operators), ACS and FERROVIAL (construction firms), ARGENTARIA (bank), COBRA (installations firm) and PROINTEC (civil engineering consulting). On **June 12, 1998** the **Concession Contract was signed** with the

successful bidder.

Construction work began on June 29, 1998 under the technical management of the CRTM, and 18 months later, on **January 7, 2000**, the **Interchange was officially opened**.

The terms laid out for the scheme allowed the interchange to be built in record time, the relevant city centre access to be decongested and, more importantly, interchange facilities to be improved for millions of public transport users.

Entrance pavilion

level –1.Llong-distance intercity buses

4. THE INTERCHANGE AND THE TRANSPORT SYSTEM

The Avenida de América Interchange lies on the eastern side of central Madrid, on one of the main access routes into the capital, the N-II and M-30, that absorbs incoming traffic flow from the Henares corridor and the North-East of Spain.

The area surrounding Avenida de América constitutes one of the most congested entry points into Madrid. Apart from being one of the major access routes for private vehicles into the capital, it is also one of the most important points of access for public transport, involving four Metro lines and 3,500 bus services per day between city, interurban and long-distance intercity bus services.
Where passenger numbers are concerned, in 1999 the Avenida de América Station handled 89 million passengers a year on the different Metro lines between boarding and alighting passengers; 3.6 million passengers a year on city buses run by the EMT municipal transport operator; 18.8 million passengers a year on interurban buses and 1.4 million passengers a year on the long-distance intercity bus routes that previously ran from the station in Alenza street and currently operate from Level –1 of the Interchange. Overall, user forecasts for the first year of operation at the bus interchange station point to a minimum of 20 million passengers.

The most significant specifications involved in this transport interchange are as follows:

- planned investment: 4,220 MPTA (25.36 MEURO);
- number of underground levels: four;
- area constructed: 10,000 m^2 per level, 40,000 m^2 in total;
- underground tunnels: two amounting to a total length of 800 m, connecting to Level -2;
- interurban and city bus services: 20 platforms on Level –2;
- long-distance intercity bus services: 18 platforms on Level –1;
- bus service connection between Level –1 and Level –2;
- car parking facilities: 396 spaces for residents on Level –4 and 256 short-term spaces on Level –3;
- other amenity space: 1,342 m2 of shop premises and 523 m2 of office facilities.

Level –3. Short-term car park

Level –3. Metro access

5. ECONOMIC ADVANTAGES OF THE INTERCHANGE CONCESSION

For a private group to be interested in investing in this type of concession its profit margin has to be over and above a specific level. The income from this operation is listed below, broken down into the different items involved.

5.1. Income from Transport Operations: Set Charge and Fee

The sources of income planned in the competitive bidding process for the first year of operation of the Interchange (including Spanish value added tax IVA) were as follows:

- a ten-peseta **fee** on each **passenger** using the services dependent on the CRTM, that is, the city bus services operated by the EMT and the interurban bus services: 228 MPTA (1.37 MEURO).

- a **set charge** of 1,200 pesetas for each **bus** departing on long distance routes: 56.9 MPTA (0.34 MEURO).

Transport operators pay the concessionaire at the fee fixed per bus passenger (EMT city buses and interurban buses) and at the set charge for long-distance buses and for the first year of operation both these items represent a sum of 284.9 MPTA (1.71 MEURO).

Foto: Tunnel connection to the Interchange

Foto: Exit tunnel

5.2. Income from Car Parks

As the Interchange is located in an area with main roads carrying heavy traffic, the Madrid City Council put in an application for construction of a large-scale underground parking facility to be used both for residents' parking and for short-term parking on a park and ride basis.

A **residents' car park** was built on Level –4 for 396 spaces, the maximum sales price per individual space of which was fixed by the City Council at 1.6 MPTA (0.01 MEURO). Local residents put in a total of 600 applications for a parking space as soon as the facility went on the market. Sale of parking spaces brought in a total of 633 MPTA (3.80 MEURO), charged direct to the successful applicants at the time of allocation and this directly lowered the funding and payback costs of the Interchange as a whole.

Furthermore, a **short-term car park** with 269 spaces was built on Level –3 which, in addition to providing a local facility in the vicinity, also serves as a park and ride facility for vehicles approaching Madrid from the N-II. This same Level houses the access concourse to the Metro thereby providing immediate transfer between one mode and the other.
According to the experience gained and studies carried out by the Madrid City Council for an average-sized park and ride facility like this one, this type of infrastructure can produce an annual income around the 60 MPTA (0.36 MEURO).

5.3. Income from the New Shopping and Office Zones Created

Interchange studies made by the CRTM indicated the need to incorporate small-scale shopping zones in the Interchange to help to make it safer, boost attendance figures and make it more interesting and attractive for both transport users and non users alike.

In this respect, the Preliminary Design drawn up by the CRTM set aside 1,342 m^2 for a shopping zone. It was planned to include space for a cafeteria in this shopping zone, close to the long-distance bus service area, to improve the unavoidable waiting time this type of user is affected by.

Publicity is another significant factor for the economic viability of any large-scale infrastructure facility, especially in view of the fact that millions of users will be seeing it on an annual basis.

Expected annual income from the above items is as follows:

- **leasing of shop premises** occupying an area of 1,342 m^2: 114.8 MPTA (0.69 MEURO);
- **rental from office space** associated with the interchange maintenance operations and with the transport operators: 16 MPTA (0.10 MEURO);
- operation of 100 m^2 set aside for **publicity space**: 35 MPTA (0.21 MEURO);
- other income from items such as **vending machines** for drinks and snacks, telephone boxes, automatic cash dispensers, etc: 20 MPTA (0.12 MEURO).

Total annual income under this heading amounts to 185.8 MPTA (1.12 MEURO).

5.4. Economic Viability of the Interchange

As a result, the overall income planned for the first year of operation is capable of totalling 530.7 MPTA (3.19 MEURO).

On the other side, the costs envisaged for operation, maintenance and conservation for the first year were rated at 175 MPTA (1.05 MEURO). Once the guarantee period covering the equipment and installations runs out, conservation costs will increase by 15 MPTA (0.09 MEURO), pushing the annual costs to 190 MPTA (1.14 MEURO).

The balance forecast for the first year of operation therefore amounts to 355.7 MPTA (2.14 MEURO).

Financial profit analysis over the concession period would be:

Investment:	4,220 MPTA (25.36 MEURO)
Sale of 396 residents' parking spaces:	500 MPTA (3.01 MEURO)
	3,720 MPTA (22.36 MEURO)
Capital outlay:	750 MPTA (4.51 MEURO)
Loan	2,970 MPTA (17.85 MEURO)

The terms planned for the loan are:

Payback period: 15 years
Opening fee: 1%
Fixed interest rate: 5.5%

Taking into account reasonable assumptions for income growth (7% passenger traffic rise over initial years and 4% for remaining years and a 2,5% increase in bus services) with a 2% inflation rate leads to the profit margin for the concession of 11.56% return on capital outlay.

6. ECONOMIC BENEFITS FOR BUS OPERATORS

It is clear that the bus operators would be interested in paying to the interchange company the set charge and/or fee if their operating savings from the use of the interchange proved to be well over these costs.

Construction of the tunnels was a decisive factor on this issue as it produces an average saving in operation time of 7.5 minutes per service. As the average hourly cost of running a bus on a regular passenger service under concession terms is 6,000 PTA (36.06 EURO), the annual saving produced for the times analysed above is of 958.13 MPTA (5.76 MEURO).

These figures are far higher than the cost of paying out the set charge and the fee for the first year, 284.9 MPTA (1.71 MEURO). The big difference between incomes and costs is the interest why the operators are using the interchange.

7. SOCIO-ECONOMIC BENEFITS

On the one hand there is the value of the time saved by bus users, taken to be the same as the time saving for the buses, i.e., 7.5 minutes, with the average hourly value for users set at the rate of 800 PTA/hour (4.81 EURO/hour) according to the recommendations appearing in the 1995 Investment

studies, giving the saving of: 3,832.5 MPTA (23.03 MEURO).
But there is the additional time saving for cars using Avenida de América street as a result of having taken 3,500 bus departures off the Avenida de América roadway and making two new traffic lanes available for general circulation (formerly reserved as bus lanes), estimated to produce 300,000 hours of time saving over the first year, corresponding to 240 MPTA (1.44 MEURO).

Consequently, the overall socio-economic benefits amount to a total of 4,072.5 MPTA (24.48 MEURO) in the first year of the concession, a figure that is above the real cost planned for construction of the entire Interchange, including the tunnels.

Over the twenty-five year concession period both the socio-economic benefits for users and the financial benefits for transport operators will rise as a function of the general increase in journey demand taking place in the Public Transport System and particularly recorded by the operators that have opted to provide a better quality service like that of the Avenida de América Interchange.

The latest statistics recorded for the current month of November 2000 indicate increases in the region of 10% for city and interurban bus passengers.

Level –2. Connecting core for all levels naturally lit by daylight.

8. CONCLUSIONS

In the same way as the Moncloa Interchange marked a turning point in the design of transport interchanges in Madrid, the Avenida de América Interchange will mark another turning point in the construction of future interchanges as it has opened the way to private financing for their construction and operation.

This type of financing is to be taken in the light of a future stake by transport operators to back the transport system and on the understanding that their financial contribution does not necessarily have to cover the total investment. This contribution will depend on the circumstances prevailing in each individual interchange scheme and the socio-economic conditions and profit margin in which each one can be developed.

Session 2

Expectations of operators from contracts with public authorities

Session 2 : Expectations of operators from contracts with public authorities

Operators are the natural partners of public authorities. The papers presented by *Antoine Frérot* (Connex) and *Rodney Dickinson* (First Group) describe two complementary views of their expectations.

Connex is a French group with a long experience of public transport contracts and is a strong supporter of this type of relations with the authorities. Contracts allow operators to commit themselves over a period of time, and to harvest a fair return from their dynamic approach to satisfying customers.

On the other hand, First Group, an operator present mainly on the deregulated UK market, is not really in favour of contractual relations which appear to be too rigid, and not to offer sufficient incentives to operators to invest in the expansion of their activities. This position can, however, be tempered by the fact that First Group is involved in a number of «Quality Partnership» agreements which are a type of contractual approach.

Antoine FREROT
Director General
Connex

Contracting in public transport : the expectation of an international operator.

Connex
169 Avenue Georges Clémenceau
92735 Nanterre
France

CONTRACTUAL EXPECTATIONS OF AN INTERNATIONAL OPERATOR

Antoine FREROT, General Managing Director, Connex

Introduction

- The contractual relationship between an operator and the transport authority is not just a matter of a mere contract between a customer and a provider. It is more a sort of partnership between the parties.
- Such partnership involves frequent contacts between the parties in order to administer the contract and manage its development. There are three main aspects to this situation:
  - The importance of **intuitu personae** (knowing with whom one is dealing) in the public authorities' choice of service provider;
  - The need to provide, during the course of the contract, for possibilities to adapt the contract to the evolution of the network;
  - **Clearly detail** a certain number of elements from the out-start: devolution of the contract, situation relating to assets, quality and definition of services, method of remuneration of the operator and the financial incentives (bonus/malus), methods of re-calculating such remuneration.

1. Expectations as to the type of contract

1.1 Selecting the operator

- By choosing the cheapest bid and to take the decision solely on the basis of the cost of services is liable to give rise to the same difficulties encountered in the construction industry, and for the same reasons.
- The choice of an operator should be based on a multi-criteria analysis based on clear, previously defined elements.

1.2 Duration of the contract

- To achieve significant network improvements and increased passenger use requires a certain amount of time.
- It is not to the advantage of the institutional customer to have short-term contracts which might encourage the operator to rapidly realise his margins to the detriment of network improvement and his results.
- For an urban bus contract, eight years seems to be a reasonable period enabling complex structures to adapt themselves.

1.3 Legal certainty of contracts

- A sound legal framework is necessary in order to avoid endless litigation with the losers in the tender process, or the opponents of outsourcing of public services.

1.4 Transparency of contracts

- Each year, the operator has to submit a report on his performance for auditing by the transport authority. If this is not done, the local population might express doubts concerning the sincerity of the contract.
- Although he is required to provide the salient aspects of his operating results, the operator must not be obliged to provide minute details which would result in the disclosure of his management methods to his competitors.
  To provide more than ten of the main operational accounts would not be compatible with the development of healthy competition, and would ruin the basic principal of public service outsourcing whereby the private sector is entrusted with the development of the sector.

1.5 Intelligent actualisation methods

- Actualisation methods should reflect the structure of the company's costs in order to avoid the company playing a game of chance unrelated to the volume of business.

2. Expectations in terms of contractual relations between the operator and transport authority

2.1 The operator is not a mere carrier

- The operator is best placed to understand the needs of passengers, market services and propose fare changes according to expressed expectations.
- Quality of service relies heavily on the drivers, counter and on-board staff employed by the companies.
- If the transport authority wants to achieve maximum added value from the company, it must involve it in the development of traffic.
  Examples:
  - Rail services contracts in the UK and Melbourne, Rouen (total commercial risk).
  - Stockholm Underground contract (significant profit sharing)
- The quality of service provided must be measured according to criteria and methods set out in the contract, and be accompanied by a bonus/malus system.
  Examples: Sweden, UK, Australia, and Germany

2.2 Definition of services

- Rather than a rigid system of specified services where any change must be decided by the public authority, it would be more clever to provide for a system allowing a certain degree of initiative to the operator.
- A system comprising clearly specified reference services, to which additional services could be added, provides the operator with margin for manoeuvre contributing to market share growth objectives.
  Examples: British railroad contracts

– It is, however, necessary to precisely calibrate the payment scheme compatible with this margin of manoeuvre, and which ought to represent 15 to 20% of kilometres covered.
– Such scheme enables to produce the maximum added value. If it is well adjusted, it provides better service to passengers and makes the best use of the company's know-how.

2.3 System governing assets

- It is not necessary for the company to own operational assets. It may, however, be charged with their renewal.
- In such case, it should be clearly provided in the contract, and in the call for tender, that any investments will be bought back by the transport authority. If the contract clauses do not include buy-back provisions, the life of the contract must be sufficiently long to permit the operator to amortise the cost of the investment within the life of the contract.
- Should the transport authority not wish to charge the operator with the renewal of the assets and prefer to do so itself:
- It is necessary that in the authority establishes a renewal plan on the basis of which the operator can draw up his bid.
- It may incite the operator to make savings on the investment plan.

Example: the contract in Le Havre

2.4 Staff issues in the management of the company

- The transport authority should not be involved in staff-related issues in the management of privately owned companies beyond the rules set out in the call for tenders.

Conclusions

A privately owned company can only operate with the backing of private shareholders who must be able to obtain a decent return on their investment, as is the case for companies in other sectors.

Profits made by the operator are justified, necessary, and not undue. Profits, however, can only be generated by the progress achieved by the operator as a result of increase in traffic, control of operating costs, and quality of service. It is, then, only fair that the operator should benefit

Rodney W. DICKINSON
Director UK-Bus
FirstGroup

The FirstGroup approach to local authorities

FirstGroup
OL 1 3TR Oldham
United Kingdom

The First Group Approach to Local Authorities

Rodney W. Dickinson, Business Development Director – UK Bus, First Group plc

Context: Bus sector in the UK

- Implementation of deregulation in 1986
- Progressive privatisation (95% of industry)
- Services operated on commercial basis (84% outside London)
- No subsidies paid to operators
- Major reductions of operating costs
- Current objective: growth revenue

New draft legislation on bus services in the UK

- Current legislation introduced in 1985
- «New Deal for Transport» white paper published in 1998
- 2 consultation papers:
- «Breaking the logjam»: road pricing
- «Workhorse to thoroughbred: more general
- Bill currently though Parliament: emphasis on quality partnerships

Introduction to First Group

- Largest bus operator in the UK (23% of the market)
- One of the leading rail service operators (3 franchises)
- Total turnover in the UK amounts to £1.5 billion
- Operator of Bristol international airport
- Major school bus operator in the USA
- Employs 32,000 world wide

Introduction to «Twintrack» programme

- Programme introduced to devote more funding to organic growth
- Project launched in 1997
- Partnership between local operators and local authorities
- Pilot schemes in Leeds, Aberdeen and Manchester,
- Offer to commit up to 50% of the total cost of the programme, including vehicles
- Aim to accelerate process

Two types of quality partnerships

- Umbrella agreement:
- General objectives
- Non-statutory
- Corridor agreement
- More specific
- Corridors treated as a whole
- Statutory in the future

Main objectives of quality partnerships:

- Improve the quality of public transport

- Present the network as fully integrated and of high quality

Main elements of quality partnership measures:
- More bus priorities
- Improved service network
- Improved publicity
- Improved waiting environment
- Improved connections/interchange
- Improved ticketing arrangements

Initial results
- A standard corridor has 80% car and 20% bus travellers
- A slight reduction in private car traffic increases considerably the number of bus users
- UK bus industry has been losing passengers for a number of years
- First Group's experience is that the situation has been stabilised with a number of examples of significant growth (+ 65% in Leeds in three years

First Group involvement in quality partnerships
- Commitment to investing in quality improvement
- Procurement of 3,000 new vehicles in 5 years
- 1,700 low platform vehicles
- 2,500 vehicles meet with the Euro 2 standard
- The entire fleet has been converted to Ultra Low Sulphur Fuel

First Group participates in:
- 18 umbrella agreements accounting for a total turnover of £ 450 million
- 50 corridor schemes for a turnover of £ 70 million

Key themes in developing partnerships:
- Early discussion amongst relevant organisations
- Commitment of senior management
- Political commitment to bus priorities
- Better/more project management skills
- Need to develop trust
- Need for continuity and a longer term view

Future developments
- Operator participation in local transport plans (LTP)
- Quality partnership schemes will be governed by specific regulations
- Quality contracts will only become necessary when partnerships fail

Scheme implementation
- Will be progressive (corridor based)
- Need to involve operators
- Will depend on funding from LTP bids
- Would only fail if operators fail to invest

UK bus industry not in favour of «quality contracts» because:
- Additional cost of bureaucracy

- Removes ability to respond to the market
- Poor effect on staff moral and motivation

- Likely to force down pay and conditions
- Would not necessarily lead to increased investment

Benefits can be achieved by working in partnership.

The London position
London Transport:

- Specifies service levels and timings
- Sets quality standards
- Controls fares
- Seeks tender bids
- Grants exclusive operating rights

Similar proposals of the European Commission within Public Service Regulation

Could stifle operator investment in fleet and infrastructure.

Session 3

Contracts
and quality of service

Session 3: Contracts and quality of service

The paper presented by *Yves Mathieu* (OGM) describes the Quattro European project to establish a European standard for quality of service. The text also draws attention to the limits of a «certification» approach.

Bard Norheim, from the Institute of Transport Economics (Oslo), presents the new type of contract between the Oslo municipality and the public operator, which aims at improving the quality of services provided. The quality contract is proposed as an alternative to competitive tender bidding.

Jean Guillot (Syndicat des Transports d'Ile de France) describes the manner in which the contracts between STIF, the regional transport authority, and RATP and SNCF, the two monopolistic public operators, integrate quality of service through financial incentives.

Lastly, *William J. Tyson* (Greater Manchester Passenger Transport Executive) presents the «Quality Partnerships», which are contractual agreements on a voluntary basis between UK public transport authorities and private network operators. The aim of such contracts is to improve the quality of services. In the near future, a new statutory framework is to be introduced to give additional powers to local authorities to use such contracts, in particular with regard to network co-ordination.

Yves MATHIEU
Managing Director General
OGM Consultants

Contrats and quality of service.

OGM
Avenue d'Auberghem, 92
1040 Brussels
Belgium

Contracts and quality of service – Results of the Quattro research project

Yves Mathieu, CEO, OGM Consultants

Conclusions of the Quattro research project

OGM was co-ordinator of Quattro, the European research project which resulted in the development of a European quality of service standard which is now in the final adoption process, foreseen for June 2001. This standard undeniably represents progress in the quality field as it provides both authorities and operators with a common definition of quality of service and a common method, referred to as the quality cycle.

However, the actual measurement of quality has not been standardised, which means that quality of services may be certified for given defined levels of service, but which are open to interpretation. Additional studies are underway, in particular within the framework of a French research programme, to standardise measurement.

Likewise, certifications only concern the right hand side of the quality of service equation, i.e. compliance of the service delivered as compared to reference levels. The left hand side of the equation, concerning perception, is not taken into account. This is a major weakness as the competing mode, the private car, has just as great an influence as intrinsic perception, going as far as to establish an erotic relationship between the user and the vehicle. This does not mean that complete activation of the quality cycle results in researching the creation of an erotic relationship between public transport users and the transport vehicles. On the other hand, it means that what can be activated are public transport values, social life, respect of the environment, life style.

Rather astonishing results are found when the standard is transposed to other sectors, in particular in terms of commitment levels, or unacceptable threshold levels. Could one imagine an amusement park accept that access systems only function 99% of the time, or a hotel chain consider normal that the cleanliness standard allow for one or two bits of rubbish being left in each room.

Prospects:

Although it is accepted that operators nowadays must ensure the quality of their services, they are rapidly limited in the provision of quality of services by the conditions in which they are provided. In the future, higher quality thresholds will be able to be achieved if public authorities and the operators commit themselves to aim for a substantial improvement in quality of service. A few recent examples will illustrate this point:

The Ile de France urban mobility plan was devised by taking quality of service into account for all transport modes. A working group was set up to address this issue. Today's contracts make explicit reference to this with a view to increasing passenger patronage (corridor contracts, interchange stations.)

The cities taking part in the pilot project of benchmarking of the citizens network (www.eltis.org/benchmarking) have been able to check that the CEN reference could be applied to different transport modes, including walking or cycling. This enables the assessment and comparison of performance levels by applying an approach focused on performance as experienced by users, in addition to the traditional technical criteria.

The Region of Brussels Capital has recently developed a work programme covering all works which will be undertaken by the regional authority over the coming four years, with specific reference to the CEN quality standard (all public transport networks).

The Belgian Federal government recently published a white paper on mobility, within 2020, in which ambitious objectives are proposed to all professionals of mobility and the individuals as well; for example: achieving a 50% reduction in the use of private cars for distances under 2 kilometres. Significant improvements in the quality of transport networks will be necessary if these objectives are to be achieved.

The Belgian Wallonia Region has established a network of mobility consultants whose task is to provide, at district level, the requisite expertise in improving the transport networks. The consultants are charged with the task of ensuring that any initiative concerning travelling and transport networks takes quality into account for users of «soft» modes and public transport.

Bard NORHEIM
Chief Researcher
Institute of Transport Economics

Quality contracts and quality monotoring in Oslo.

Institute of Transport Economics
PO Box 6110 Etterstad
0602 Oslo
Norway

Quality contracts and quality monitoring in Oslo

Chief researcher Bard Norheim
Institute of Transport Economics Norway

In 1991, a customer orientation project was launched in Oslo, spurred by reduced subsides, and the possibility of competitive tendering being introduced in the operation of public transport. The long-term goal was a 25% increase in traffic before year 2001, through a policy of «more satisfied customers». Public transport in Oslo has increased annually, from 136 million journeys in 1992, to roughly 153 million in 1997.

In 1998 TOI proposed a new output-based contract in Oslo based on the quality monitoring system and performance-dependent subsidies. If the company fails to keep the quality level within defined borders, we propose that the contract will be cancelled and opened for tendering. The first step of this contract was introduced in January 1999. This paper will present the Oslo model and the experience after 7 years with the different types of quality monitoring systems and contracting public transport.

Introduction

Tendering is extensively used within local public transport in Scandinavia. About 80 percent of publicly served routes in Sweden and Denmark are open to tenders. Norway is an exception as the proportion of tendered services is only about 2.5 percent. Nevertheless, there are no signs suggesting that public transport operations in Norway are less cost-efficient than those in the other Scandinavian countries, and the level of subsidies is much lower. During the last ten years, subsidies have been reduced by 42 percent and in a number of towns, public transport receives no subsidy at all (1).

In Norway, it is not the tender as such, but the threat imposed by tendering, which is the main reason for this development. As from 1991, efficiency agreements have dominated the contract form in Norway (4). In these contracts, specific cost cutting or subsidy reductions have been agreed as a condition for the routes not to be tendered. An examination of the effects of these efficiency agreements reveals that the public transport companies have achieved a cost reduction of between 1.5 and 4.5 percent annually, but that even companies which did not have specific agreements also experienced considerable increases in efficiency in the period (2).

One of the cities which has experienced the most comprehensive restructuring during recent years is Oslo, where subsidies have been reduced in parallel to an increase both in productivity and the number of passengers. From 1999, a new performance contract form has been introduced with a stronger focus on productivity and increased numbers of passengers (5). This is the first stage towards a new type of subsidy contract developed by the Institute of Transport Economics commissioned by AS Oslo Sporveier – Oslo Public Transport (the municipal public transport authority). The long-term objective is a performance contract where all subsidies depend on the level of performance. In this paper we examine more closely the structural changes which occurred in Oslo and the background for the new contract form which has been proposed.

Market efficiency

The Institute of Transport Economics has conducted an analysis of the effects of the high

subsidies in Oslo compared to four other urban regions[2] (1). This analysis shows that during the period 1986-97, subsidies to public transport in Oslo have been halved, measured in constant prices per vehicle-kilometre (Fig. 1). This corresponds to a reduction in subsidies of about 50 percent in 1986 to 30 percent in 1997. Simultaneously, the development has been uneven in that the largest reductions occurred before 1992, subsequently remaining fairly stable. This implies that the passenger-orientation project commenced following a period with considerable reductions in subsidies, and where the companies had increased fares as well as reduced costs in order to meet these cuts. In constant NOK, fares increased by about 30 percent up to 1992, whereas costs were reduced by about 10 percent. Cost efficiency has continued after 1992 while the level of fares has been slightly reduced. In our analyses, we have concentrated on both the commercial and socio-economic consequences of the reduced subsidies to public transport in Oslo. The basic economic analyses are relatively straight- forward analyses of how the cuts in subsidies per vehicle-kilometre have been covered. These analyses show that for Oslo, the increase in revenue and cost efficiency is, in fact, greater than the subsidy cuts per vehicle-kilometre. In total, 116 per cent of the subsidy cuts have been covered by a reduction of 85 per cent in reduced costs and 29 percent by increased fares. Oslo clearly differs from the other three cities (Bergen, Trondheim, and Tromsø) where subsidy cuts have been considerable, but where between only 50 and 85 percent of the cuts have been covered. This is related to the fact that there has been a relatively good income margin in several companies, but also that they have reduced subsidies more by comparison to Oslo. Public transport in Bergen Trondheim, and Tromsøis operated today virtually with no subsidies at all.

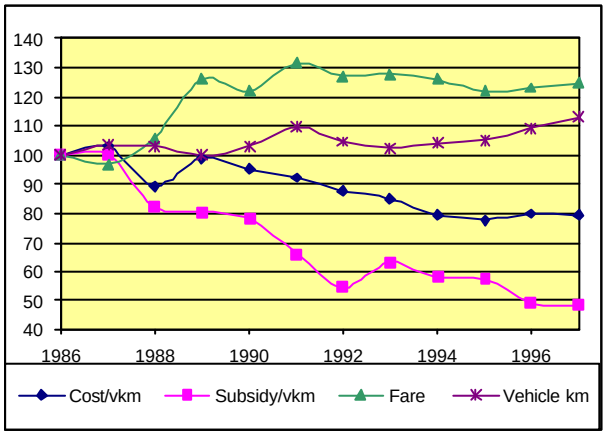


Figure 1: Development of cost, subsidy and revenue per vkm in Oslo Public Transport 1986-97 Real monetary terms, index 1986=100

As shown by the figure above, a considerable proportion of the reduced subsidies is covered by increased fares. But at the same time, the route network has increased by about 10 per cent. In order to evaluate the real efficiency savings of these subsidy cuts, we must therefore analyse the socio-economic consequences of these changes, when regarding the effect of car traffic as well as costs for current passengers. We have carried out an analysis of the demand effects of changes in fares and services in addition to the quality of the service. The demand analysis revealed a price elasticity of –0.29, and a supply elasticity (vehicle-kilometre per capita) of 0,40 for Oslo, while this was somewhat higher for the other urban regions. The subsidy cuts in total have resulted in a decline of about 8 per cent in total journeys per inhabitant up to 1992, increasing thereafter up to 1997. In total, the decline *in number of*

[2] Oslo, Bergen, Trondheim, Kristiansand, Tromsø,. Subsidies have been increased in Kristiansand.

journeys per inhabitant associated with this sector of public transport has been about 4 per cent, but there has been an increase *of about 4 per cent from 1992-97.*

Net savings

The evaluation of the net savings in Oslo and the four other cities will depend on the effect of increased car traffic and increased travel costs for the public transport passengers. An overall review of the five urban areas shows that of the total subsidy cut of NOK 592 million, net savings are only NOK 135 million (22 per cent) when we take into consideration the increased costs for other actors (Table S.1). This suggests that 78 per cent of the subsidy reductions have been distributed as NOK 77 mill. (13 per cent) as a consequence of increased road traffic, NOK 33 mill. (6 per cent) as reduced service frequencies, and NOK 347 mill. (59 per cent) as increased fares. In addition to the fact that reduced subsidies led to a 7 per cent decline in the number of passengers, the remaining passengers have experienced a 25 per cent higher fare level. A significant proportion of the reduced subsidies have thus been "financed" by the passengers, thereby weakening the competitiveness of the public transport sector. This may in the long term result in a further decline in the number of passengers.

Our analyses also show that in the first part of the period, up to 1992, the transport companies experienced a real efficiency gain while after 1992 the costs have largely been passed on to the passengers. When we regard all the five urban areas together, there has been an efficiency loss of NOK 20 million after 1992. These calculations show that there has been a considerable potential for efficiency within the sector, but that this was essentially reaped before 1992.

The picture is much better in Oslo. There has been a significant and real increase in efficiency throughout the whole period. In sum there have been annual savings of NOK 141 million, corresponding to 40 per cent of the total cuts in subsidies. At the same time it is important to remember that there is a considerable proportion of rail- and tramways in Oslo (about 60%), which indicates that current cost levels can be unproportionately low due to previous investments. This suggests that long term savings for Oslo can be somewhat less than the "short-term" period examined here indicates, and that this difference is more significant than for other cities. Nevertheless, a substantial efficiency gain has been experienced in Oslo, in a period without decreasing subsidies.

Table 1: Socio-economic consequences of changes in the public transport sector.[1] Mill 1997 NOK.

	SUM 5 TOWNS			Oslo		
	1986-92	**1992-97**	**1986-97**	**1986-92**	**1992-97**	**1986-97**
Changes in subsidies	-462	-129	-592	-352	-1	-353
Costs of increased road traffic	45	32	77	35	-1	34
Costs for passengers						
Increased travel time	-19	-12	-31			
Reduced frequency	-	33	33		-10	-10
Increased fares	251	96	347	206	-17	188
Net savings	-185	20	-166	-111	-29	-141

Development of a new performance contract

The next step towards increased customer orientation was launched in 1999, based on a new

performance contract between the municipality and Sporveien, based on a study of alternative

contracts made by TØI (5). The main objective of this study was to examine the possibilities of developing an alternative subsidy model, compared to the current model as well as to traditional tendering procedures. Such a model can provide an incentive to develop more market-efficient and cost- efficient public transport, i.e. the model will take into consideration the needs for:

- ✓ Customer-oriented product development
- ✓ Long-term planning and product development
- ✓ Co-ordination of the route network in an integrated transport region
- ✓ Clearly defined and predictable goal parameters

We have investigated whether it is possible to develop quality-dependent subsidy contracts subject to conditions and subsidy arrangements which, utilising commercial objectives (profit maximisation), will develop an optimal service in the interests of society in general(3).
The quality-dependent subsidy contracts imply that the market initiative including responsibility for long-term planning and product development will become the responsibility of the public transport companies, while stringent terms will be imposed by the authorities in respect of conditions and goal achievement.
Commencing with the basic characteristics of the public transport market, we have developed a subsidy model which both encourages increased ridership as well as increasing the benefit of existing passengers.
Our calculations show that it is possible to develop a subsidy contract that effectively combines a commercial objective for Oslo Public Transport Company with a socio-economic maximisation within the present subsidy framework. This would amount to a social benefit of some NOK 300 million p.a. According to our calculations, this subsidy model would result in a 150 percent increase in service frequency and a fifty-percent reduction in capacity per departure.

Quality contracts need to be developed

In these analyses we have shown that there is a considerable rationalisation effect, both regarding market efficiency and production efficiency as a consequence of adapting to quality-dependent subsidies. However, this will depend upon:

- ✓ the level of freedom to adjust fares and services
- ✓ the possibilities for rationalisation and a re-allocation of resources over time.

The details of a subsidy arrangement of this kind, and any possible provisional or transfer arrangements must thus be the subject for negotiation, thereby affecting the “optimal” level of the individual subsidy elements. A more detailed description of a new subsidy model must be developed when these parameters are determined.
As a basis for this subsidy contract we have attached importance to simple and perspicuous goals which do not require extraordinary and complicated calculations. Our survey of AS Oslo Sporveier’s on-going quality controls shows that there is a sound basis for developing this form of contract without necessitating major changes in routines. The fact that the data from both the customer satisfaction surveys and the travel guarantee are obtainable for a considerable period provides us with a solid basis for an evaluation of the current situation. On the basis of the analyses undertaken in this document, we will propose that the development of quality contracts in Oslo should be built upon the following main elements:

- ✓ Competetive pressure and level of freedom
- ✓ Quality-dependent subsidies
- ✓ External conditions

- ✓ Provisional arrangements

Framework with minimum demands for quality of contract

We propose that the Municipality of Oslo define a framework for the contract specifying the minimum requirements for quality to be fulfilled. The framework for the contract should comprise a minimum level of quality regarding price, service and accessibility, which the authorities wish to maintain.

We also suggest that the following elements be included within this framework:

- ✓ The Travel Guarantee system is retained and extended
- ✓ The Customer Satisfaction Index is used as an indicator of quality, allowing the contract to be terminated or renegotiated in the event of the indicator falling below a specified level
- ✓ The area coverage, defined as the number of bus/tram stops or stations per square kilometre shall not be below the agreed-upon level
- ✓ The average fare rate shall not rise above a level that has been predetermined.

In addition, the municipality must define the general level of service and supply, which provides the basis for the subsidy contract.

Quality-dependent subsidies

Within the framework of the agreement, we will propose that Oslo Public Transport enter into a quality-dependent subsidy contract with the Municipality of Oslo, where the key elements include the following:

1. Oslo Public Transport receives a flat-rate subsidy per kilometre for regular routes
2. The subsidy depends on whether there are extra inputs during rush hours or are included in the basic service
3. Oslo Public Transport may determine the number of bus/subway kilometres in the network which the company will operate at any one time
4. For peak-passengers, Oslo Public Transport will, in addition to fare revenues, receive a fixed subsidy per passenger journey
5. The subsidies are paid on an on-going à-konto basis based on provisional estimates. The final account is settled at the end of the year, as soon as all statistics and data are presented

Within this framework, Oslo Public Transport must operate financially autonomously, and will be judged according to its commercial results – following the subsidies.

The Municipality must ensure appropriate conditions for public transport

We suggest that the contract contain a mutual responsibility for both Oslo Public Transport and Oslo Municipality along lines similar to those in the Swedish city of Helsingborg. This implies that the municipality commits itself to carry out all necessary measures in order to achieve the jointly defined objectives and immediately consider all proposals from Oslo Public Transport which can provide a better basis for fulfilment of the contact.

Provisional arrangements with an intention of pursuance

A contract of this type will be quite demanding for Oslo Public Transport, as it requires the company to have a comprehensive understanding of cost structure and transport demand. The subsidy arrangements will stimulate an increase in services, but at the same time the vehicle capacity is likely to be reduced.

One assumption for achieving the full effect of this type of model is that long term, stable conditions exist, allowing a re-disposition of the service routes and vehicle fleet. This will give Oslo Public Transport a greater degree of freedom in negotiations, at the expense of the political authorities. This freedom implies, however, a greater economic responsibility for the service.
This suggests a requirement for a provisional arrangement if a subsidy model is to be introduced. For Oslo Public Transport some time will be required before the vehicle fleet is changed, thus it is not possible to reap the full benefit of a new subsidy model from the very first day. This 'lag' and the restructuring costs must be taken into consideration prior to the introduction of this type of contract.
The City Council in Oslo has agreed to the main principles of this form of 'quality contract'. As a first step in this direction, the City Council has approved a clause in the 1999 budget, whereby a specific proportion of the operating subsidy to Oslo Public Transport is to be performance-dependent. In addition to a fixed subsidy of NOK 472 million, a performance-dependent bonus of NOK 37.3 million has been allocated dependent upon either increased route production or an increased number of passengers. This allocation amounts to about 7 per cent of the maximum subsidy grant, or about 8 per cent of the fixed amount. The arrangement is to be under continual assessment, and the measures instituted will be effective during the latter half of 1999. The City Council intends to extend the arrangement during the year 2000. Provisional experience from the arrangement will be reported to the Council in connection with the budget proposals for 2000.

Table 3.1: Subsidies to Oslo City Transport by basic and performance-dependent transfers: Source: Oslo City Council.

Purchase of service	Mill. NOK	Proportion
Basic amount	472,4	93 %
Maximum performance-dependent amount	37,3	7 %
Maximum subsidy	509,7	100 %

Performance-dependent criteria
The City Council has attached particular importance to measures instituted covering periods of high traffic density/rush hours, based on the following criteria:

- ✓ Increased frequencies during rush hours
- ✓ Increased capacity (place-kilometres)
- ✓ Start-up costs
- ✓ Increased total number of passengers

The level of incentives and maximum payments in 1999 are presented in Table 3.2. Here, a bonus of NOK 1000 is obtained for every additional departure in rush hours; NOK 0.5 per extra place-kilometre, and NOK 4 per extra passenger. A further NOK 1.5 million has been allocated to extended marketing/start-up costs. The table also shows the maximum payments and base levels for the various goal criteria. As can be observed, the largest proportion of the bonus is related to total journeys (56%), while increased frequency and seating capacity are each apportioned a 20% bonus.

Table 3.2: Performance objectives and maximum limits for payments in 1999

Performance objectives	Incitement	Max limits	Proportion (%)
Rush hour departures	NOK 1000 pr departure	7 500 000	20
Place-kilometres	NOK 0.5 per place-kilometre	7 500 000	20
Passengers	NOK 4 per passenger	20 800 000	56
Start up costs		1 500 000	4
Sum		37 300 000	100

This is the first stage in a performance-dependent subsidy. In Norway, similar contracts are being developed in two other regions, but the conditions of the contracts will differ. This requires a detailed understanding of cost structures, and that the threat of tendering is genuine. Experience and the evaluation of these contracts suggest that this is the correct way to go and will suggest whether other elements should also be included in this type of contract. Nevertheless, we consider that that the centre of focus should be product development and market efficiency in contracts being prepared for future public transport. In this respect, "the threat of competition" can be a more effective means than competitive tendering.

Jean GUILLOT
Deputy Director General
Syndicat des Transports d'Ile-de-France

Financial incentives for quality in contracts.

Syndicat des Transports d'Ile-de-France
9/11 Avenue de Villars
75007 Paris
France

Financial incentives for quality in contracts

Jean GUILLOT, Deputy Director General, Syndicat des Transports d'Ile de France

1. Introduction to public transport in the Ile de France Region

- Some figures

11 million inhabitants
6.7 million journeys each day by public transport
82 operators
RATP (state-owned company) : 75 % of traffic
SNCF (state-owned national railways): 17% of traffic
80 private bus network operators: 8% of traffic

- Presentation of the Syndicat des Transports d'Ile de France (STIF)

The STIF is the Ile de France public transport authority. Its governing board includes representatives of the state (50% of votes), the Ile de France Regional Council and the eight départements which make up the Region.

- Financial aspects of public transport in the Ile de France

The cost of public transport in Ile de France amounts to 5.5 billion Euros each year. Costs are financed by passengers (2.1 billion Euros); businesses located in the Region pay a specific tax for transport (2.1 billion Euros); the State, the Region and the départements contribute 1.3 billion Euros.

2. Contracts and quality of service in Ile de France

In 1999, the public authorities took the decision to modernise relations between the Syndicat des Transports Parisiens (STP), now STIF (Syndicat des Transports d'Ile de France), and the public companies operating the transport networks in Ile de France (SNCF and RATP) The aim was to obtain a greater degree of responsibility from the enterprises and to provide them with rewards for their efforts. This had not been the case under the old system of paying a compensation to automatically balance the operators' accounts at the end of the year.
The four year contracts include several financial incentive schemes for:

Service levels actually provided;
Volume of ticket sales by the operator
Quality of service achieved

Financial incentives for level of services actually provided:
The contract contains a precise description of the service required. For the Metro, for example, supply of service should reach 42.75 million trains/kilometres by 2000.
There is a financial penalty if the operator does not provide this level of service. The penalty is triggered if there is a 3% shortfall. The penalty increases incrementally to a maximum ceiling if the level of service falls short of the target stipulated in the contract.

Questions:
- When a service does not run service should its impact be assessed according to whether it is a high or low frequency ? For example, it is less annoying for passengers to wait an additional three minutes in the Metro than to be obliged to wait 30 minutes for certain bus lines?
- From the point of view of passengers, would it not be better to require a replacement service to be run rather than impose a financial penalty on the operator ?

Ticket sales-related incentives
The remuneration paid to the operator depends on the number of passengers carried. The contract specifies an objective of patronage linked to a reference revenue level. This revenue can vary, within a given upper/lower bracket, depending on the
variations in the number of passengers carried, within a spread of plus or minus 2% of the contract objective.

Questions:
- When determining passenger levels, how can a distinction be made between the degree of responsibility of the operator, and what is due to the general economic situation?
- Is it not relevant to take only into account a 2% variation in the number of passengers carried?
- Should the operator be afforded a greater power of decision to decide fares so that he can pursue a fare policy to increase the number of travellers?
- Should there other incentives to fight fare cheating?

Quality of service-related incentives
The contract defines quality of service indicators: punctuality of trains, reliability of the service, cleanliness of stations and vehicles, information for passengers, availability of machines, and quality of reception. The contract sets out objectives for each of these indicators and, depending on results (limited within a spread of +/- x% in terms of the target), a financial penalty or a bonus.

Indicators for:
- The Metro and suburban rail services:
    - Punctuality (percentage of commuters arriving at destination with less than five minutes delay)
    - Reception by ticket sales staff
    - Cleanliness of stations
    - Availability of ticket vending machines
    - Availability of escalators

- Buses:
    - Reception by drivers
    - Information at bus shelters/stops (route numbers with route maps, name of bus stop, timetable)
    - Commercial speed

Questions:
- Should a weighting coefficient be applied according to the number of passengers?
This would be logical. If a train is late more persons are inconvenienced during peak rush hours. This refinement has a cost, however.

- How does one measure the quality of service on a bus line? The contract takes account of the quality of bus shelters/stops and service by drivers, but not punctuality, because it is difficult to assess the responsibility of the operator.

- What is meant by quality of information? In the contract with SNCF, the quality of information corresponds solely to the number of information screens actually functioning. This comprises only part of the information. It would be necessary to be able to truly measure the quality of information per se. However that is obviously extremely difficult.

- Who should measure the quality indicators? In the contract it is stipulated that operators shall measure the indicators, and STIF would merely audit the methodology.
Is it necessary to do more, in particular for those quality indicators applied to subjective values (e.g. quality of reception)?

What is the right level of bonus/malus? For RATP, the maximum service quality bonus which may be paid only represents 0.3% of annual revenue, and for increasing ticket sales a relatively meagre 0.6%. However, new attitudes have begun to develop since the new contract was introduced.

How is one to take account of major disruptions (strikes, e.g.)? Quality of service indicators are not measured during major disruptions; however, the latter do have a considerable financial impact on other incentive schemes included in the contract (service levels and ticket sales).

Conclusion

The introduction of financial incentive schemes in contracts has had an overall positive impact, even though it has been naturally more significant for management grades than for the rest of the staff.
The main advantage of the new system is that it allows more objective and constructive discussion of problems between the transport authority and the operator.

William J. TYSON
Chairman Managing Director
TMG-GMPTE

Quality partnerships in Manchester.

Greater Manchester Passenger Transport Executive
9 Portland Street
M 60 IHX
United Kingdom

CONTRACTS AND QUALITY OF SERVICE
QUALITY PARTNERSHIPS IN MANCHESTER

W.J. TYSON
CHAIRMAN AND MANAGING DIRECTOR, TRANSPORT MANAGEMENT GROUP OF GREATER MANCHESTER PASSENGER TRANSPORT EXECUTIVE.

INTRODUCTION

To understand the role of Quality Partnerships in Great Britain it is necessary to understand the institutional arrangements for public transport. There are no authorities that have overall responsibility for public transport. Most services are provided by private sector operators. The roles of the transport authorities are:

- To contract for bus services that are socially necessary but are not being provided commercially by the operators.
- To contract with train operators (jointly with the national franchising authority) for local rail services.
- To contract for the operation of light rail systems that they own.
- To provide information on all services for passengers
- To administer the Authority's policy of reduced fares for the elderly, disabled and children, and to reimburse operators for the loss of revenue and the additional costs they incur because of the policy.
- To provide "infrastructure" - bus terminals, interchanges, stops, shelters etc. - primarily on the bus network.

To fragment and complicate matters even more, the transport authorities are not responsible for the highways or for town planning. These are the responsibility of the municipalities. The only link is that the municipalities appoint the Councillors who make up the Passenger Transport Authorities. Nor is there a single operator in each area - in Greater Manchester we have almost 50.

It is also important to recognise the outside London, the bus is the main mode of public transport. In Greater Manchester, buses account for about 90 per cent of passenger journeys.

In this situation, no single authority or organisation, acting alone, can improve the total public transport experience. For a bus journey:

- The transport authority provides the passenger information and the waiting environment
- The operators determine the timetables, routes and fares for most services
- The municipalities control the highway network and the extent to which buses receive priority both on the highway and at traffic signals.
- The municipalities also determine land use planning decisions and the extent to which these support access by public transport.

Therefore the only way in which quality of service is through some form of co-operation amongst the authorities and agencies concerned. This is the rationale of the Quality Partnership approach.

The GREATER MANCHESTER QUALITY PARTNERSHIP

It was against this background that the Greater Manchester Quality Partnership was developed. In 1997 a new government was elected on a manifesto that included a new transport policy. This was based on the need to reduce the growth in car traffic and consequential environmental damage by policies that would enable public transport to play a bigger role in meeting total travel demand.

However, we recognised that it would be some time before the policies could be worked out and implemented. In the event, we are now, three and a half years after the election just waiting for major new transport legislation to be agreed by the Parliament. In 1992 our new light rail system (Metrolink) had opened and over the years since then had attracted about 20 per cent of its trips from the car. This demonstrated that high quality public transport would be acceptable to car drivers for some of their journeys. Indeed, the Metrolink system has got a market share of over 55% for journeys from its catchment to central Manchester.

As I have already said, buses carry the vast majority of passengers. They were continuing to lose patronage. In addition, competition between bus operators had led to a situation in which public transport was not promoted as a network but as a series of uncoordinated and competitive services. This was not only failing to achieve public sector objectives of making more use of public transport but was reducing the benefits that operators were getting from the investments they were starting to make in new, low emission, fully accessible buses.

Senior level discussions between the operators of all three modes and GMPTE led to an agreement that something needed to be done to improve the quality of the whole of the public transport network and to achieve a greater degree of integration. This had to be done within the existing institutional framework and could only be done through partnership.

The result was to initiate the Greater Manchester Integration Project. Its two key objectives are:

To improve the quality of public transport

To present it as an integrated, high quality network - and one that is easy to understand and easy to use.

The project, which I co-ordinate, seeks to improve five aspects of the journey by public transport:

Information - which is often the first, and fundamental barrier to using it

The waiting environment - which needs to be of a high quality to minimise the impact on passengers of waiting itself -which cannot be avoided.

Services - which need to be reliable, frequent, easy to use, comfortable and offer competitive journey times.

Fares - which need to be easy to understand and appropriate for the journey patterns that passengers are making.

Connections and interchange - which need to be as easy and comfortable as possible and should encompass interchange with cars and taxis.

The project was formally launched in August 1998 by the then Minister for Transport. It has the personal support of the Deputy Prime Minister who is in overall charge of transport policy.

The main tool for achieving the aims of the project is a Quality Partnership Agreement. This operates at two levels.

A county wide "umbrella" agreement which commits partners to a series of measures that will affect the entire network and benefit all public transport users.

A series of "corridor agreements" for more specific improvements like bus priority and improved interchange that are targeted at specific corridors.

The county wide agreement includes all organisations concerned with the provision of infrastructure for and the operation of all modes of public transport:

The Passenger Transport Authority

GMPTE - which carries out the Authority's policies

The ten municipalities in Greater Manchester - who control most of the road network and the planning process

The Bus Operators Association

The principal train operator

The Metrolink operator

Railtrack - the owner of the rail infrastructure

The national Highways Agency - who control the rest of the road network including the motorways.

Manchester Airport

The main provisions of the county wide agreement include:

Better information to passengers and potential passengers

Expansion of multi-modal, and multi-operator ticketing

Targets for more use of low-emission fully accessible buses

Agreement to confine bus service changes to fixed dates

Introduction and development of a 200 km. bus priority programme

Provision of improved passenger interchanges.

The corridor agreements are still being finalised as they have had to take account of the forthcoming legislative changes and the existing competition laws. They provide in detail for the total upgrading of services on key corridors including:

Corridor long bus priority through bus lanes and priority at traffic lights

Provision of shelters at all stops where this is practicable

Optimisation of bus stop locations and provision of new clearer stop signs

Increased use of low floor, low emission buses

Minimum frequencies which are often an improvement on existing service levels

Higher standards of customer care

Future provision of real time information at key stops.

WHAT WE HAVE ACHIEVED SO FAR

The project has been running formally for just over two years. In this time we have achieved a lot. Full details are given in the Annual Report of the project which is available from me. (bill.tyson@gmpte.gov.uk). The highlights include:

A new telephone call centre giving information on all local public transport. This is now also giving information on journeys from Greater Manchester to other regions and is linked to a national network of call centres. In the future it will be able to give real time information to callers, telling them where the next bus is. It uses advanced map based software to locate the origin and destination and can give directions to and from the nearest stop or station.

Timetable information on the Internet.

Information on train and tram connections in bus timetables

New maps one of which shows the links on the network with high frequency services between them.

Completion of the first Quality Bus Corridor, substantial completion of the second and work on a further five corridors.

Introduction of day travelcards available on all operators services and on a combination of modes.

More fully accessible, low emission buses. Over 70% of bus kilometres are run by buses meeting Euro 1 or Euro 2 emission standards and almost 25% are run by fully accessible buses.

Timetables available for all services

At present we are working on five major programmes within the partnership:

Passenger information which has the aim of delivering the vision of a high quality and comprehensive information system - including real time information on all modes

Quality Bus Corridors - which have already been described

Interchanges - which will improve physical facilities and information at over 200 points on the networks

Smartcards - contactless Smartcards will be introduced next year for passengers entitles to reduced fares funded by the Authority. This will provide the opportunity and infrastructure for operators to develop innovative ticketing schemes.

Fixed track systems comprising the implementation of at least three Metrolink extensions and improvements to the local rail network.

These programmes will be achieved through a large number of projects involving different groups of the partners.

Already the decline in bus patronage has been stopped and as these measures come on stream the tide should be turned in favour of public transport. Rail and Metrolink patronage is already rising and bus patronage should soon follow.

The ROLE OF The TRANSPORT AUTHORITY

The paper has already shown that the Passenger Transport Authority and GMPTE (its implementation arm) has played a central part in the development and implementation of the Quality Partnership in Greater Manchester. The Authority was the initiator of the integration project and has provided the resources to co-ordinate it. This has resulted from its central position in the public transport network. In particular, it is a single-purpose authority, unlike the municipalities that are responsible for a wide range of services. The Authority is only responsible for public transport.

The Authority is also responsible for the conurbation as a whole. It is therefore the only body that can take a strategic view over all operations and modes in the whole of the conurbation. It can do this without being deflected into other policy areas.

There has, of course, had to be some adjustments on the part of the Authority. Working in partnership with companies that are contracted to GMPTE for the provision of services can give rise to tensions. For this reason the integration project has been developed and operated at a very senior level within GMPTE under the control of the Director General.

The Authority and GMPTE have been instrumental in getting the support of the ten municipalities for the partnership and for the bus priority programme that they need to deliver. This has involved accepting responsibility for co-ordinating the development of the bus priority programme in conjunction with the operators and the municipalities.

There has also been a significant increase in the Authority's activities in areas like passenger information that have expanded. Some of this expenditure has been funded by the operators, but there has been an increase in expenditure by the Authority on the integration project.

The FUTURE

As I said at the beginning of the paper, the legislative situation is about to change and this will have a significant impact on the activities of the Authority and GMPTE. The new legislation will create a "Local Transport Authority" which will have new powers. In the conurbations like Greater

Manchester the existing Passenger Transport Authorities will become the Local

Transport Authorities. Amongst the new powers that they will get are:

The power to exclude operators who are not part of a quality partnership agreement from using the facilities like bus priority that are provided as part of the partnership.

A duty to specify what information should be provided for passengers on bus services. The required level of information has to be provided by operators, or, if they do not, the Authority can provide it itself and recharge the reasonable costs it incurs.

A duty to produce a strategy for the development of all bus services in their areas - instead of just the socially necessary ones.

A power to specify what types of inter-operator and inter-modal tickets should be provided by operators. This is coupled to a duty on operators to provide the tickets.

These changes will considerably strengthen the ability of the Authority to co-ordinate and integrate the network. However, most of them, in particular information and ticketing are already being delivered by the Quality Partnership. It is likely that the partnership approach will continue to be used in Greater Manchester.

If Quality Partnerships fail to deliver, the legislation provides for Quality Contracts. These would allow an authority to let a contract with an operator for the exclusive provision of services on a route or in an area. Other operators would then be prevented from running on that route or in that area. The government envisages that this will only be used as a last resort and the permission of the Secretary of State is needed before any such scheme can be introduced. Under a Quality Contract the Authority can decide the routes, timetables and fares. There will, however, be considerable problems of transition from the present situation to a Quality Contract. For example, operators in the area who do not get the contract may simply withdraw their services before the contract starts and are most unlikely to invest in vehicles in the area in the transition period. It remains to be seen whether Quality Contracts will be successful.

What is certain is that transport authorities will play a bigger role. They are getting new powers and also new responsibilities. In my view the partnership approach will, however, continue to be at the heart of policy in many areas including Greater Manchester.

CONCLUSION

Conclusion

Georges DOBIAS
Vice-President of the Syndicat des Transports d'Ile-de-France
President of EMTA

First of all, I would like to express my thanks to all participants and speakers at this seminar who, by their attendance, have demonstrated the interest in this topic chosen for the first public event organised by EMTA.

During the course of the day we have been able to listen to many varied and complementary views. Transport authorities, network operators, researchers, representatives of the European Commission have all confirmed the topicality of the issue of contracts throughout Europe.

That is, in fact, the lesson to be drawn from this meeting. The development of contracts for network management is a major trend on the institutional stage of urban transport in Europe. Contracts provide answers perfectly adapted to the expectations of the actors involved.

- Public authorities want to be sure that public funds will be used for the purpose they were voted:
- Transport operators expect public authorities to afford them a sense of responsibility, allowing them to make the best use of their know-how, and to be justly and fairly rewarded for their efforts:
- Last but not least, passengers are watchful of the quality/price ratio of public transport.

In this respect, it is highly instructive to note that even the British system, based on deregulation, as opposed to a concerted contractual approach, is making increasing use of contracts through Quality Partnerships.

One of the main advantages of contracts resides in their adaptability to highly diverse situations. Firstly, diversity of purpose. Our tour of European cities today has demonstrated the existence of many types of contracts covering: investment, concessions, management, sub-contracting/outsourcing, quality, objectives, and integration of pricing, to name but a few. Diversity of financial arrangements through management contracts, gross cost or net cost contracts, including financial bonus/malus incentive schemes. Each city being a specific case in itself, it is normal that they should opt for a particular type of contract. And yet, despite this broad range of diverse situations, a certain number of characteristics may be observed, such as the importance brought to customer satisfaction, adaptation of service to needs and quality, greater sense of responsibility of the players, and transparency of their relations.

But to be truly useful, a contract must provide for monitoring and assessment schemes. The operator, as well as the transport authority, requires precise indicators in order to know at any time whether actual operating conditions conform to contract objectives. The possibility to introduce adjustments during the running of the contract must be integrated into the contract so as to avoid possible tension between the parties.

The introduction of contracts is a progressive process. The examples of Brussels and Paris demonstrate very well that there is a learning process to be gone through when implementing

contracts. It is rare for everything to work from the outset. There should be no shying away from drawing lessons to correct certain aspects when renegotiating the contracts.

Given the many qualities of contracts it is not surprising that the European Commission has expressed the wish for generalisation of this type of regulation which is in line with the spirit and requirements of the Single European Market, in particular with regard to the stringent limits and transparency of public subsidies to enterprises. Moreover, the contractual approach, which necessarily generates a better definition of quality of service, also enhances the attractiveness of public transport. The generalisation of contracts is an important factor in the promotion of sustainable mobility in European cities, and is, therefore, in phase with the declared aims of the European Union in terms of reduction of greenhouse gas emissions.

There is a fundamental aspect to the introduction of competitive tenderings between operators for the awarding of contracts to operators. Quite apart from the criteria for choosing an operator – and there would seem to be a consensus for a multi-criteria approach in selecting the best bid- there is the very serious problem of transparency, and the advantage benefiting the in-place operator.
It is up to the authorities to take all appropriate steps to play the competition card, and to choose bids offering the best value for money.

Contracts offer a precious tool to achieve efficient management of public transport. It is for this reason that EMTA will continue its studies in this area over the coming months.