Vilnius, Lithuania

General data

On March 11, 1990 the Supreme Council of the Republic of Lithuania passed the Act for the Re-establishment of the State of Lithuania. Before that date and slightly after, all elements of the public transport sector were organised with a planned economy in mind. All subsidies for public transport during the Soviet period were provided by the ministries of communication and finance. Depots (for buses and trolleybuses) were obligated to prepare plans and forecasts for deferred income, runs and number of buses on routes for the next year. Ministries allocated subsidies for the following year according to these plans. Depots were able to cut down on the number of runs when facing insufficient subsidisation.

However, following the re-establishment of independence, the situation worsened. The lack of a clear legal basis for providing funding caused both Vilnius municipal bus companies to build up enormous debts. The main cause was the lack of reimbursements from the municipality for concessionary fares. Public transport in Vilnius suffered most from the economic declines of 1991-1994 and 1998-2000. The municipality provided compensation, but due to the economic situation and disputes with the government concerning the allocation of money for this activity, only a part of the calculated compensation has been given since 1994/95.

Private operators did not account for a large share of the public transport market in Vilnius in 1993-1995 and the provision of services was chaotic. The preconditions for operating a route were simple: a licence (purchase in tax inspection) was needed, along with coordination of the route with the transport group in the municipality, which was responsible for taxis and all other public transport operators. The department is very small, and employees are unable to control and coordinate such a large number of transport vehicles, which explains why the data on private operators is lacking.

Huge changes began with the establishment of Communication Services, a municipal enterprise that was founded (according to Resolution No. 230 of Vilnius City Council as of July 15, 1998) as part of the overall development of the public transport sector in Vilnius. Since the inception of Communication Services, the public transport system in Vilnius has undergone faster and more progressive changes. However, there are unsolved legal and organisational problems concerning the status of this enterprise.

General information about Vilnius public transport

The average population density in the city of Vilnius was 13.8 inhabitants per hectare in 2003. The city has been expanding on the account of private constructions and adopted suburban areas. Usually the construction consists of semi-detached or detached private houses, which decreases population density. The construction of multi-apartment houses is still very slow, although its rate is the fastest in Lithuania.

Changes in the number of inhabitants in Vilnius during 1998-2003 are presented in Table 1.

All in all, it may be presumed that both residents and workplaces are going to be placed farther and farther from the city centre, resulting in urban sprawl. This trend can cause further problems for public transport because the net-

TABLE 1

Number of Vilnius inhabitants: 1998-2003

1998	1999	2000	2002	2003
578,400	578,300	578,000	553,400	553,200

work and social services would need to serve a greater area, as travel between residences and workplaces increased.

The last survey performed by Vilnius Municipality shows (see Figure 1) that the use of personal cars increased from 1998 to 2002. However, public transport still dominates city transport, providing 59 percent of the total transport needs (compared to 63 percent in 1998). The route network in Vilnius originally developed with trolleybuses primarily serving central areas, while buses operated on the outskirts and in suburbs. According to interviews, trolleybuses are most popular in the central part of the city (approximately one-third of Zirmunai, Karoliniskes and Zverynas inhabitants use trolleybuses), and buses are used more in the outskirt zones lacking trolleybus infrastructure (half of the respondents in Rasos, Naujoji Vilnia and Pilate). However, private cars are the most popular means of transport in peripheral zones with middle or upper-class inhabitants.

According to research into Vilnius public transport in 1998, passengers preferred trolleybuses (57.8 percent) and buses (39.3 percent) during peak hours. The share of private buses and minibuses was small (1.5 and 1.4 percent, respectively). The number of trips performed daily by one Vilnius inhabitant (only public transport) was 1.43 in 1998 (the number of Vilnius inhabitants is 578,400). However, no such survey was conducted during the 2002 research.

According to the 2002 research, trolleybuses transported 47.8 percent of all passengers, buses 41.5 percent and private operators 10.7 percent. The share of private operators increased, with private buses carrying 4.3 percent of all passengers, and private minibuses carrying 6.4 percent (see Table 2 for a breakdown of passenger ridership during peak traffic hours).

As mentioned previously, trolleybuses operate in the central part of the city, while buses provide transportation to the trolleybus network. The average trip lengths in 1998 and 2002 are as follows: trolleybuses 3.01 and 3.46 km; buses, 4.45 and 5.05; private buses, 8.89 and 7.8; and minibuses, 7.39 and 7.05.

During research in 1998 it became clear that only half of all private operators were working on the routes. It was duly stressed that control of this subsystem is not working properly, but to date there have been no changes. Official statistics provided by the municipality about private operators are unreliable. For example, information collected from private operators in 2001 differs considerably from information collected during public transport research in 2002 (official information from the municipality). Private operators proceed with impunity due to the lack of control and absence

FIGURE 1

Modal spit (percentage): 1998-2002

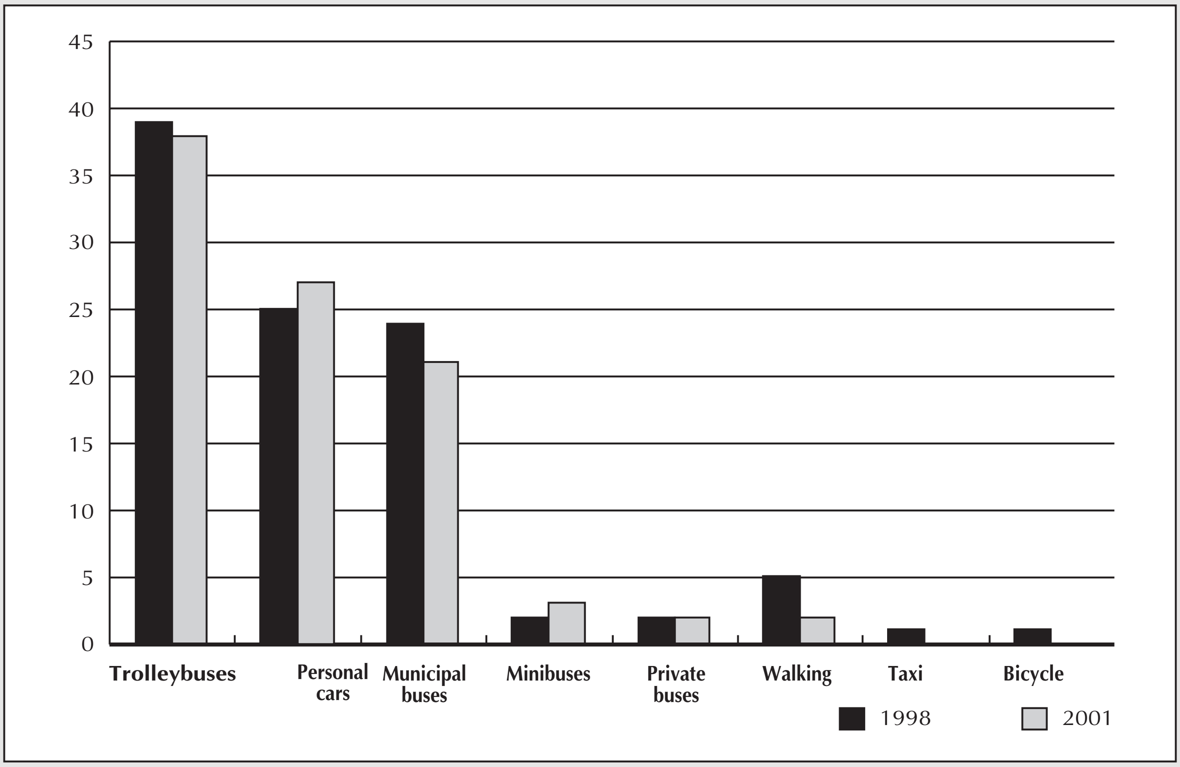


TABLE 2

Public transport passengers in Vilnius in 1998 and 2002 (peak hours)

	Passengers transported		
	1998	**2002**	**Change**
Trolleybuses	74,371 – 50.5%	54,437 – 47.8%	- 19,934
Buses	68,026 – 46.1%	47,242 – 41.5%	- 20,784
Private buses	2,600 –1.8%	4,912 – 4.3%	+ 2,312
Private minibuses	2,400 – 1.6%	7,239 – 6.4%	+ 4,839
Total	**147,397**	**113,830**	**- 33,567**

of legal consequences, and are free to choose the best time to operate or close down a non-profitable route without any notification, which was pinpointed during all interviews with Communication Services. Meanwhile, municipal operators have to work according to contracts and schedules.

More detailed technical information about the performance of Vilnius public transport can be found in the appendix. The currency used in calculations is the Litas, which was officially introduced on July 25, 1993. From 1994 until February 2002, the Litas was linked to the US dollar, and the rate was fixed at USD 1 = LTL 4. From February 2, 2002, the Litas became fixed to the Euro at EUR 1 = LTL 3.4528.

Related studies and perspectives

A considerable number of previous studies within the areas of public transport in Lithuania and the city of Vilnius have been carried out in the past. The implementation of various recommendations from these studies, however, has been rather limited. This study will take into consideration and build upon the research and recommendations from previous studies as listed in the references.

One of the most significant outcomes of these studies was the establishment of Communication Services in 1998. The necessity of one management company was emphasised in the Master Plan of Urban Transport for Vilnius City (1997). Other studies also recommended the strengthening of the public transport management body. However, because of legal and political problems, to date there is no clear division of functions between public transport actors in Vilnius.

There are studies related to the public transport sector that are financed/performed by foreign funds/specialists. Recent studies include one on the Vilnius public transport organisational structure (2001), a mobility and light tram feasibility study (2002), a project on route network planning (2002), and an ongoing new ticketing system project in Vilnius. Plans are to install new ticket machines (electronic cards) instead of punches, and to switch from one-time tickets to a time-based ticket system by 2006.

Organisational development of public transport in Vilnius

Main actors and roles

Pubic transport in Vilnius is undertaken by Vilnius Municipality. The bus and trolleybus companies are joint stock companies wholly owned by the municipality.

However, the bus and trolleybus depots were state-owned companies until 1992, and the bus company operated not only on urban, but also on interurban routes. The Lithuanian government decided to remise both depots to Vilnius Municipality in 1992. Later, in 1995, depots were re-registered as closely held joint stock ventures (CHJV) with special status. All shares of the companies belonged to Vilnius Municipality, and in 1996 the council decided to reorganise Vilnius Bus Depot, CHJV into two companies: Vilnius Bus Depot, CHJV with special status and Long Range Passenger Transportation Company, CHJV. After reorganisation, Vilnius Bus Depot assumed the role of urban/suburban operator. However, these were not the last changes of status for the municipal companies, and in the beginning of 2003, companies were registered as Vilnius Buses, CHJV (without special status) and Vilnius Trolleybuses, CHJV. Theoretically, this status allows the selling of shares to other parties but, for the time being, 100 percent of shares in municipal depots belongs to Vilnius Municipality.

There are a number of stakeholders acting within the Vilnius transport sector today. The major stakeholders are:

- Public Transport Group (in the City Economy Division, Energy and City Economy Department of Vilnius Municipality);
- Communication Services, municipal enterprise;
- Vilnius Buses, CHJV (or, Bus Company);
- Vilnius Trolleybuses, CHJV (or, Trolleybus Company);
- private operators with medium-sized buses; and
- private operators with small buses (minibuses).

There are neither city trains nor a light rail system. Vilnius train services play a role in regional traffic, but are a negligible part of urban transport. The current relationships between main actors in the organisation of public transport are shown in Figure 2.

Vilnius public transport is financed from municipal sources. The state covers part of the delegated duties (concessionary fares), but investments in municipal depots come exclusively from municipal financial sources. Almost all new vehicles purchased in recent years have been financed from the municipal budget (most recently from the municipal fund for environmental protection).

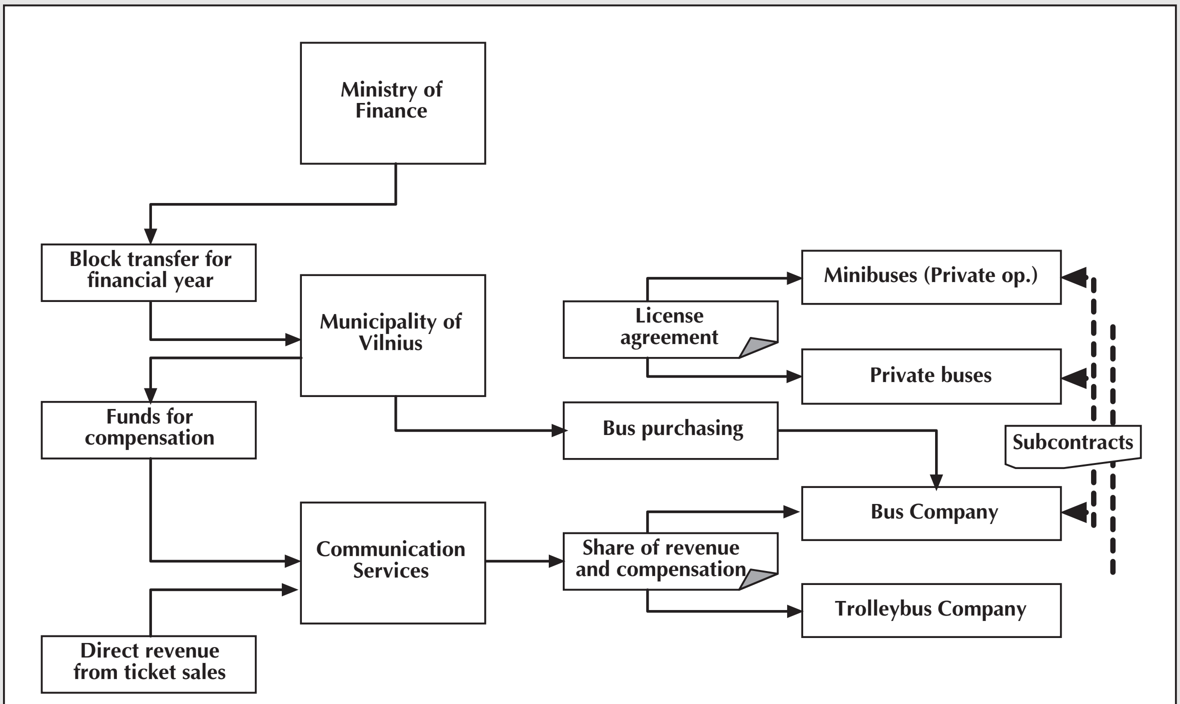
Delegated responsibilities are calculated during certain procedures. Communication Services prepares a forecast of needed compensation in the middle of the year, which it transmits to Vilnius Municipality. The municipality collects all information about needed compensation and submits information to the Ministry of Finance. The ministry then transfers the allocated sum for compensation (on the budget line for "transport and communications") to the municipality at the end of the year. There is no special line for public transport in this lump sum and, theoretically, all stated amounts should be covered. The municipality adds subsidies and then transfers these amounts to Communication Services. However, not all amounts have been covered through the years. Nowadays, the state is in debt to the municipality, and bus companies are in debt to the state (unredeemed taxes). Therefore, it is nearly impossible to distinguish state, municipal, and fare subsidies in these amounts.

Since the 1990s the municipality has been regularly negotiating this matter with the state administration, but nothing has been earmarked yet to transfer state funds to the municipality for public transportation. This situation makes it difficult to make more specific calculations and for the state and municipality to negotiate compensation.

Communication Services is the municipal enterprise that deals with public transport matters on behalf of the municipality. The group is a technical secretariat and the executor of the transport policy set by the municipality. As shown in Figure 2 and Table 3, the municipality and Communication Services have different roles in relation to the different operators. In reality this means that Communication Services today has no power to control or negotiate with private operators, since licenses and ticket prices are negotiated with the municipality in a separate department. However, the monitoring system is not working well under the Public Transport

FIGURE 2

Main actors in Vilnius public transport and their basic relations



Group. Communication Services fully controls municipal operators (performs ticket checks, prepares timetables, applies sanctions) and partly private operators (only ticket checks and preparing time tables). Table 3 contains a brief description of the roles allocated to the different institutions.

Legal aspects and taxes

All bus carriers have paid VAT since May 1, 2000. Service suppliers and carriers should pay VAT according to the Value Added Tax Law (Article 3, chapters 12-13). The VAT Law was changed so that all public transport passengers should pay 5 percent VAT, which means that passengers pay 5 percent VAT to carriers, carriers pay 18 percent VAT to suppliers (for spare parts, tyres, etc.) and the difference should be reimbursed to carriers from the state budget.

The legal basis for the licensing system consists of parts of different laws:

- Civil Code;
- Law on the Principles of Transport Activities;
- ordinances from the Ministry of Transport and Communication;
- Road Transport Code;
- Law on Public Administration;
- various licensing rules;
- Law on Public Service;
- Law on Self-Government;
- Administration Offences Code; and
- Law on Passenger Transport.

There is no law concerning public purchase of the passenger carriage service. The new Law on Transport Privileges

TABLE 3

Overview and brief description of institutional roles regarding public transportation

State	Financial tasks	Planning responsibilities	Practical assignments
	National agreement on compensation scheme guidelines. Allocation of overall compensation to municipality.	None	None
Municipality (Subdivision of city economy in the Department of Energy and Economy at Vilnius Municipality and Public Transport Group)	Transmits budget prognosis on compensation and negotiates final amount to be allocated to compensation scheme in municipal budget. Determines fares/ticket prices for private operators (Council of Vilnius approves prices of municipal operators).	Agrees to/amends ticket prices. Prepares and decides Vilnius Plan and Vilnius Vision 2020. Decides the route network (daily) for private operators. Introduces and terlminates routes. Approves and coordinates timetables/route network for all operators	Licenses all operators and minibuses. Signs contracts with all operators. Purchases new buses. Develops infrastructure. Controls private operators (excluding passenger checks).
Communication Services	Distributes ticket revenue and compensation to operators. Calculates compensation budgets/prognoses.	Decides route network (daily) for municipal buses Develops and procures funds for new ticketing system. Approves and coordinates timetables/route network for municipal operators. Approves, adjusts and coordinates timetables for private operators.	Prepares/prints timetables for buses, trolleybuses and minibuses. Prints and distributes tickets. Performs ticket inspection aboard municipal vehicles.
Activities not clearly allocated today			Control of private operators (buses and minibuses)

came into force May 1, 2000. The law provides fewer privileges for passengers, and compensation for "privileged passengers" (see below) on local routes must be covered from the municipality budgets.

The law states that several socially disadvantaged groups are entitled to a discount of 50 or 80 percent on selected public transport fares. It should be noted that the discount is relative, which implies, for example, that the price for a disabled person to travel by bus in Vilnius might be different than in other Lithuanian cities.

Political factors are often a bigger influence on fare prices than economic ones. Recently, after an increase in fare prices in September 2000, the situation in Vilnius has improved, although complete operating costs are still not covered.

Private operators running medium-sized buses on a contractual basis with the municipality are obliged to carry privileged passengers at the reduced ticket price, but they do not receive any compensation for the "loss" of revenue related to lower ticket prices.

Communication Services would like to control transport operators. According to Lithuania's legal system, however, Communication Services can execute such functions only on an agreement basis. Nowadays Communication Services has contracts with municipal enterprises to perform such functions. Contracts with private operators have yet to be signed.

The Road Transport Code was changed in 2002. Changes to this act enable the municipality to transmit certain powers (control of operators) to a public agency. There will be no need to make agreements between the controlling institution and operators; this will be performed according to the Code of Administrative Offences and the Road Transport Code. The status of a "public agency" is suitable to perform these functions. A public agency is a non-profit organisation that also has the right to carry out economic-commercial activities in order to reach its goals. A political decision could transform Communication Services into an agency.

Energy prices

Fuel prices in Lithuania more or less depend upon the situation on the world market and existing taxes set by Parliament. The excise tax has also been balanced and increased up to minimum requirements of the European Commission. However, European Union common policy has had limited influence on energy prices since a minimal level of excise tax was defined after negotiations with Lithuanian authorities. A decision has yet to be made whether the excise tax on fuel will be returned to operators of regular routes.

The new Law on Excise (currently being elaborated by the Ministry of Finance) stipulates that the excise tax on diesel fuel should grow from year 2002. As of April 4, 2004, the wholesale price of diesel fuel was LTL 2,451.79 per tonne, and A-95 petrol was LTL 3,015.41 per tonne.

The Law on Excise provides that the excise tax on diesel fuel will grow from LTL 560 per tonne to LTL 720 per tonne. It also proposes to increase the excise tax on liquid gas from LTL 170 per 1,000 litres to LTL 220 per 1,000 litres. In order to meet the minimum requirements of the EU, the excise on diesel should rise to LTL 1,200 per tonne. The excise tax on petrol is not likely to increase in the future, and should remain around LTL 1,250 per tonne. Besides the excise tax, the retail price of any fuel contains 18 percent VAT, as well as any profit for retail traders. However, this part of the price remains a trade secret and is negotiated with retail traders.

Another factor is import taxes on fuel. Starting from May 1, 2004 Lithuania introduced new taxes on imported fuel, according to EU requirements. The tax on imported fuel will fall from 15 percent to 4.7 percent. Experts predict that fuel prices will drop by LTL 5-7 cents.

Electricity prices have remained stable, but may rise in the near future because of the intended decommissioning of the first block of the Ignalina Nuclear Power Plant in 2005. Experts have forecasted price growth to be between 10-15 percent. However, the electricity market is already open (large consumers are able to buy electricity directly from the supplier), and the price depends on the ability to negotiate, which also creates the potential for discounts to the Trolleybus Company.

The expenditure structure of the Bus Company and the Trolleybus Company indicates that the costs for fuel/energy were 21.9 percent and 11.5 percent, respectively. From this perspective the Bus Company will be much more vulnerable to the expected rise in fuel prices than the Trolleybus Company will be to higher prices on electricity.

Development of ticketing system

During 1991-1992, ticket prices were raised on six occasions because of hyperinflation (the price of a single ticket rose from 16 kopecks to 2 roubles). Later, with the introduction of a national currency, prices were raised several times, and in 1996 the price of single ticket became 60 cents. The ticket system was divided between municipal operators, who then became responsible for revenue collection.

All operators had separate tickets, and different departments were responsible for revenue collection until 1999. The ticket system was partly integrated in 1999 (see Figure 3). Ticket prices were approximately 33-40 percent in September 2000, and a common monthly ticket for both buses and trolleybuses was introduced at that time. Communication Services became responsible for revenue collection. However, the system covers only municipal operators and private operators are not included in this system. Tickets are valid for one trip only (there is no time-based system). Moreover, each separate private transport enterprise has its own accounting system (usually every private vehicle operating on route has a ticket dispenser on board), and it is extremely difficult to obtain data about revenue collection in this private sector.

In general, municipal public operators generate revenue from four types of tickets (with subcategories):

- single ticket for a bus or trolley bus (purchasable in vehicles for LTL 1.0 and at Kiosks for LTL 0.8; 50-percent or 80-percent discount for certain passengers, with the 80-percent discount tickets only available at kiosks);
- monthly ticket for bus or trolleybus (purchasable at kiosks at a price of LTL 35; 50-percent or 80-percent discount for certain groups; monthly card for workdays is LTL 28 with no discount available);
- monthly ticket for both bus and trolleybus (purchasable at kiosks at a price of LTL 50; 50-percent or 80-percent discount for certain groups; monthly card for workdays is LTL 40 with no discount available; introduced in September 2000 and has a rising market share); and
- one-, three- and 10-day tickets for both trolleybuses and buses (purchasable in two places for LTL 4, 10, and 20 with no discounts).

Ticket prices for private operators are LTL 0.7 for large buses, and often between LTL 1-2 for minibuses (max. LTL 2.5). There are no official figures (private operators provide data about carried passengers to the Department of Statistics, but this data is not separated from municipal operators in the official statistics) about the turnover of private operators, but a rough estimate is between LTL 5-6 million per year. (Some stakeholders think that medium-sized buses generate LTL 15-20 million).

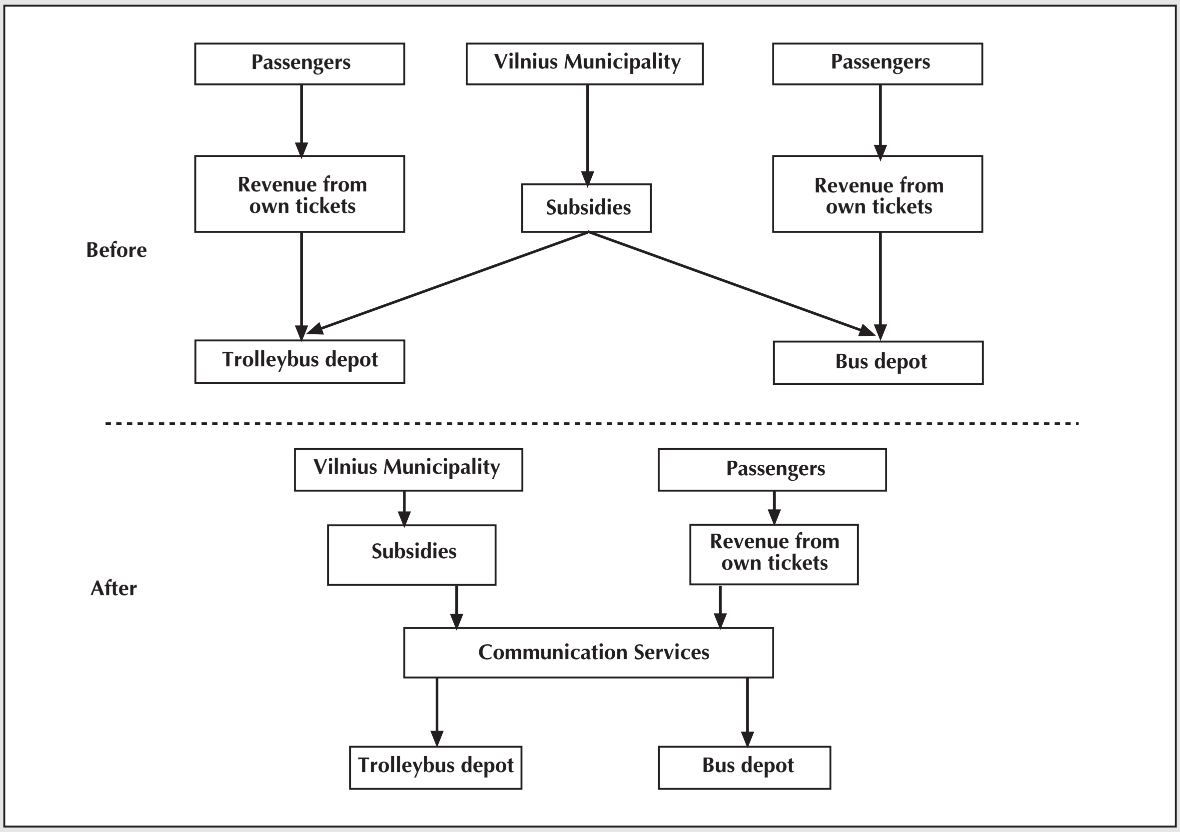
Finally, it should again be stressed that the sale of tickets and revenue to private operators on minibuses, medium buses and large buses is a closed and parallel system to the municipal system. Each operator who keeps the revenue also sells tickets separately. That is one of the main hindrances to obtaining data about the entire public transport system in Vilnius.

Financial set-up

Communication Services gets a 4-percent share of the revenue of single tickets sold aboard vehicles, and a share of 15 percent of all other tickets sold (e.g. monthly tickets and single tickets sold in kiosks). Communication Services does not get a share of the compensation for concessionary fares.

FIGURE 3

Distribution of revenue and compensations before and after 1999



The enterprise received 66.6 percent of income from tickets in 2002 and 65.5 percent in 2003. Other revenues were generated from parking and other commercial activities.

After the share to Communication Services is deducted, revenue is split between the Bus Company and the Trolleybus Company according to the following methodology:

- Revenue from monthly tickets for buses is transferred to the Bus Company, and monthly tickets for trolleybuses is transferred to the Trolleybus Company.
- Revenue from single tickets (which can be used in buses or trolleybuses) sold at kiosks and the revenue from common monthly tickets are split proportionally to the company's share of total number of kilometres run by both the Bus Company and Trolleybus Company. For example, the bus company receives a share of the total common revenue according to the formula below:

$$\frac{85\% \times \text{total common revenue} \times \text{Bus km}}{(\text{bus km} + \text{trolleybus km})}$$

The factor of 85 percent is used because Communication Services receives 15 percent of this revenue. In Vilnius the basic financial set-up for the Bus Company and Trolleybus Company is as follows:

- Companies get a share of revenue from ticket sales. The actual share and calculation method is negotiated and agreed upon between the companies and Communication Services.
- Communication Services calculates the amount of privileged passengers and the matching economic compensation. The municipality provides the compensation, but due to economics and disputes with the government concerning the allocation of money for this activity, only a part of the calculated compensation has been given since 1994/95.
- The municipality owns and invests in the infrastructure and the rolling fleet.

Over the years, missing compensations (and, perhaps, politically imposed fare restrictions) have caused the actual income for the two companies to be less than operating costs, which has led to increased debt and insolvency (see Figure 4). In April 2001, total debts for both companies were LTL 61.5 million. LTL 57.8 million of this was income taxes from physical persons, together with fines on unpaid taxes. Annual turnover for both companies is LTL 79 million.

Due to the activity of Communication Services, LTL 2.1 million has already been saved by taking over the functions of fare selling and passenger control from the Bus Company and Trolleybus Company. The enterprise started to prepare timetables for the municipal operators in 1999, and for private operators in 2000. The coordination of bus and trolleybus work (route optimisation and reduction of idle runs) helped to economise further LTL 1.7 million.

As mentioned before, the municipality for some years has not paid the total calculated amount for compensation of concessionary fares to the bus companies, which is a main factor in the poor financial results. The municipality argues that reimbursement from the state is too low, and that in general there is not enough money for all the activities. Starting from July 1, 2000, Communication Services has presented invoices to the municipality concerning passenger carriage, according to the number of tickets sold, and from 2002 the municipality began to cover debts to the public transport sector (the municipality intends to cover debts through investments until 2006).

Fleet renewal

Bad financing of the Vilnius public transport caused "perforce renewal" of the fleet in municipal enterprises. Purchases of second-hand buses and trolleybuses were financed mostly from independent budgets. Most of the new buses and trolleybuses were financed from the municipal budget (leasing, bank guarantees or the special municipal fund). To bring in new buses, the municipality has signed a triangular agreement with the bus/trolleybus companies and a leasing company.

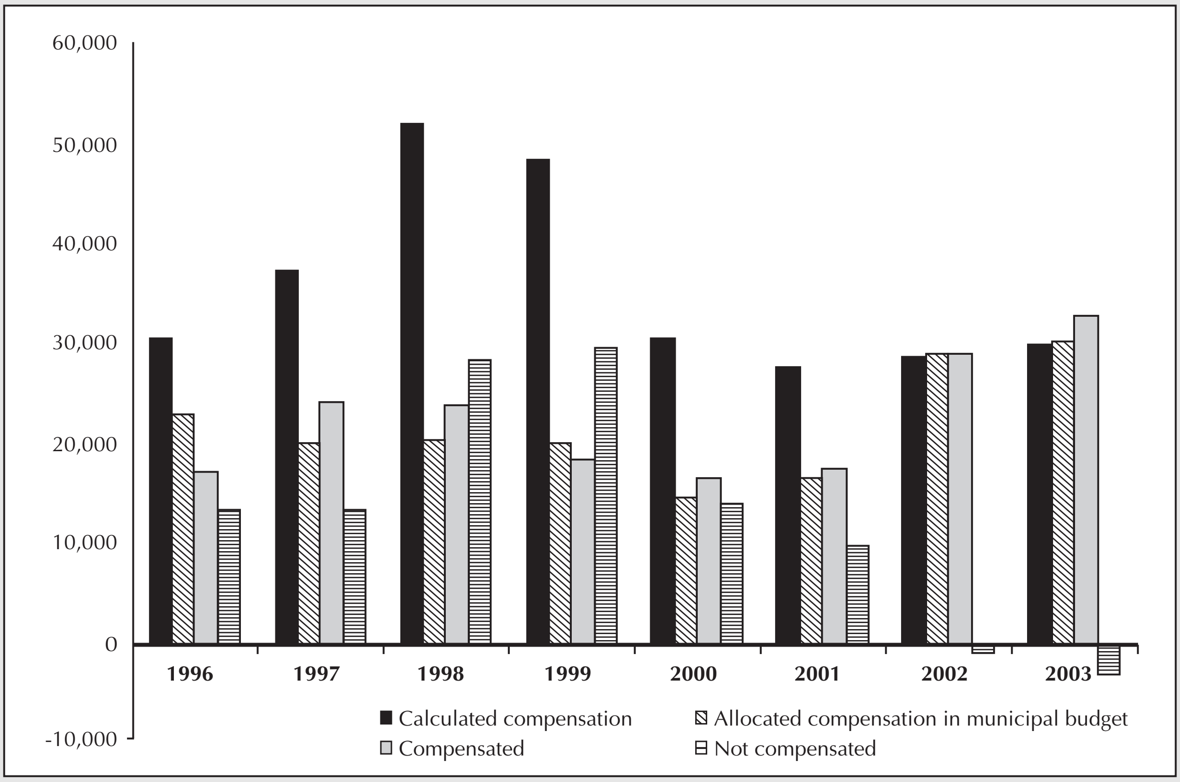
During its first years of operating independently, the bus depot received, gratis, 10 second-hand buses from Norwegian, German and Austrian municipalities. During 1993-1994, the municipality and Bus Company bought 16 second-hand buses from German municipalities. The Bus Company covered only 30 percent of the costs. Vilnius Bus Company bought new Karosa B-741 buses in 1994 for testing. After the tests, the municipality and the Ministry of Communications bought 11 such buses in 1995. Later the municipality financed the purchase of 36 buses (LTL 22,660,000) in 1996, 31 (LTL 19,340,000) in 1997, 10 (LTL 5,077,000) in 1998 and 28 (LTL 14,216,000) in 1999. The value of all these buses increased the authorised capital of Vilnius Bus Company. The company then sold old Russian buses and bought approximately 30 second-hand buses from Western Europe. Maintaining such a variety of brands has a negative influence on operational costs.

Vilnius Trolleybus Company purchased old vehicles from neighbouring countries and used these vehicles as spare parts to repair the old fleet — a main reason the old vehicles were kept on routes. However, the municipality also invested in the trolleybus fleet and bought new vehicles in 1990 (15 Skoda, 270,000 roubles), 1991 (8 Skoda, LTL 11,880,000), 1996 (30 Skoda, LTL 17,880,000), 1997 (30 Skoda, LTL 19,080,000), 1999 (15 Skoda, LTL 10,980,000) and 2000 (8 Skoda, LTL 5,856,000). The extension of trolleybus infrastructure (approximately two kilometres of cable network and substations) to the student district cost LTL 6,000,000 in 1998.

The number of vehicles owned by transport enterprises of Vilnius Municipality in 2001 can be seen in Figure 5. As of June 2001, the Vilnius Bus Company had 246 buses, of which 98 buses (40 percent) were up to 5 years old, 12 buses (5 percent) 5 to 10 years old, and 136 buses (55 percent) older than 10 years.

FIGURE 4

Compensation to Vilnius municipal operators (LTL thousands)



The Trolleybus Company had an older vehicle fleet. Of a total of 303 trolleybuses, 77 (25 percent) were up to 5 years old, 7 (3 percent) were 5 to 10 years old and 219 (72 percent) were older than 10 years.

The municipality is planning to participate in the CIVITAS 2 programme and to receive funding for the fleet renewal. There were no attempts to finance public transport from foreign funds before this programme.

The municipality is neither participating in such projects nor searching for other funds because:

- There was huge competition during CIVITAS, and the procedure is time-consuming.
- Information about such environmental funds or international funding institutions is in short supply in Lithuania.
- The financial situation limits contact with foreign partners.

"Private and public partnership" is not defined in Lithuanian legalisation. Some municipal buses perform transport to the biggest mall centres on a public-private partnership basis, but it is a minor activity. Moreover, there were no private companies interested in public transport sector privatisation. There was some interest in privatising the Bus Company, but after an analysis of the current financial situation, the investors lost interest. The financial situation stabilised only a few years ago, and therefore the present situation is perhaps more favourable to initiatives.

Finally, the municipality bought 14 new Mercedes-Benz (4 CITO and 10 CITARO) buses for LTL 14 million in 2003. The buses were purchased from a special environmental fund (municipal allocations for environment protection). The municipality plans to renew the bus and trolleybus fleet during the next three years and to purchase 90 new buses and 45 trolleybuses. A three-year purchase programme shows that 30 new buses (20 medium size and 10 articulated) and 15 larger-sized trolleybuses will access Vilnius streets annually. The tenders have already been announced and the first contract could be signed in April 2004. Planned investments include LTL 70 million for buses and LTL 50 million for trolleybuses.

Development of contracting system

Service levels and contracts are decided both by the Vilnius Public Transport Group and Communication Services. The division of responsibility between the two parties seems unclear and separated from the discussions of fare levels. The provision of an actual level of service in public transport also affects operating costs.

Theoretically, private operators can propose or close routes and departures on specific stretches if the municipality and Communication Services agree to it. Licensing and timetable- and route approval for private operators is performed by the municipal Public Transport Group (within the Department of Energy and City Economy), while municipal route planning goes to Communication Services and the Public Transport Group: thus, levels of service and financial matters are difficult to coordinate.

The current contracting process seems to be a mostly reactive process. The municipality receives initiatives for new routes (the municipal operator, Communication Services or municipality may start the procedure) and then analyses these with the assistance of Communication Services. Usually, the new route is initiated by agreement from all parties, so changes in the route system have been quite small throughout the five-year period. (Some routes were added mostly because of technical/political issues, rather than according to need.) Public services are needed in new, remote areas of the city, for example in the north and south of Vilnius (new single-house territories).

If an enterprise wants to operate on a route, it should have:

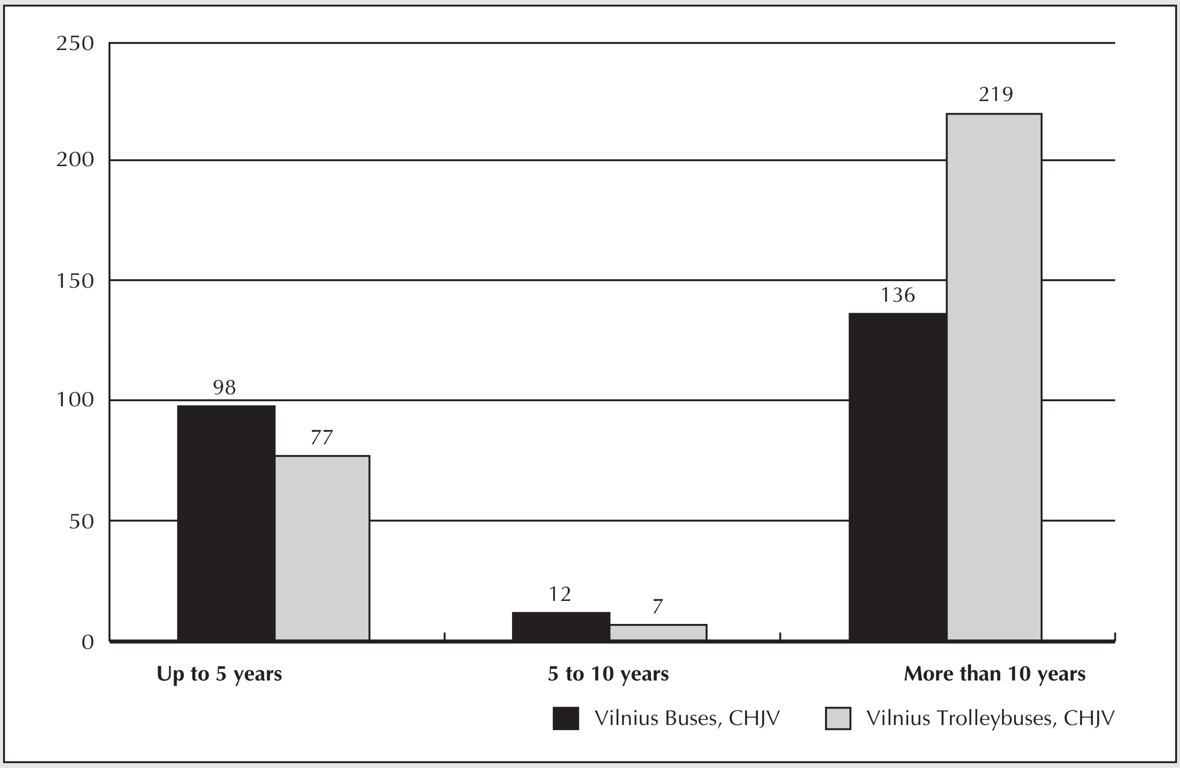
- a license for an enterprise (for public transportation activity);
- a license for a transport unit;
- a permit for a route; and
- an agreement with the municipality.

The municipal Bus Company has licenses, while the Trolleybus Company currently is not included in the licensing system (they have permission to operate without cards).

Communication Services has contracts with municipal operators concerning the provision of services and distribution of revenue. To ensure clear and fair competition among operators, Communication Services has a vision of becom-

FIGURE 5

Age of buses and trolleybuses in 2001



ing the sole contracting unit for the municipality. This includes establishing clear guidelines and unified procedures for the tendering out of routes. However, there have been no attempts to tender municipal operator routes.

The problem is that this system puts both the municipality — and especially Communication Services — in a more reactive than proactive role. They respond to outside initiatives instead of taking the lead in the planning route networks.

The contracting system itself seems to enhance this reactive role. As it is today, a license/contract with an operator (public or private) gives the operator the right to a renewal the contract if he or she has fulfilled the requirements. The municipality planning and reorganising the route network is thus restricted by existing contracts for a number of years.

Communication Services also clearly states that they themselves would prefer a management model, where they have a "service contract" with the municipality, with a stabile funding agreement and a clear and formalised set of goals to be achieved.

All in all, Communication Services has the ambition to become a full-scale management agency that has the competence to prepare and participate in planning, as well as policy making, while at the same time remaining a public enterprise. As described earlier, this is not possible within the existing legislation on public administration.

Main challenges and recommended action plan

The main challenges are:

- distributing funds and revenues;
- improving the decision-making process when defining the service level;
- defining the future role of Communication Services; and
- assuring adequate data on passengers and traffic (especially for private operators).

For each challenge a number of concrete recommendations on necessary actions have been defined. The actions range from long-term changes of the legal framework, to changes of organisational and financial management of the sector in the short term.

Distribution of funds and revenues

The lack of stability and coherence between service level requirements and the actual allocation of public funds has created a very serious financial threat to the publicly owned operators.

The budget procedures between state, municipality and Communication Services concerning the cost of the compensation scheme have resulted in underfunding, where the operating costs of the publicly owned operators are not even covered. At the same time, some of the private bus companies are facing demand to transport privileged passengers at reduced rates without receiving public compensation for tickets sold at those prices.

Recommendations for short-term action

A new financing model should be defined.

- This model should be based on gross contracts. In reality this implies subsidising non-profit routes, where actual revenue is lower than the operators' cost to deliver a politically mandated level of service. Operators receive a contractual fixed sum to cover operating costs. The costs are revealed in tendering procedures.
- Revenue from ticket sales should be collected through the municipal entity (future agency).
- A financing and practical model should be defined for a commercial super-system of minibuses (ensuring full control of private operators).

A new set of gross contracts between operators and the municipality should be defined and described.

- Contracts should ultimately be applied to all routes and the entire system (bus or trolleybus). In order to achieve this, the municipal entity should create a long-term plan for tendering the routes/system.
- As mentioned, there shall be a special contract/license system for minibus operators.
- Contracts should be for four or five years, with obligatory re-tendering after the end of the contract period.
- The criteria for awarding operator contracts (public or private) should be based on operating costs and the quality of service the operator will provide for the specific route.
- Potential routes should be contracted out logically in logistically coherent packages. When tendering one system, the contract should include all bus or trolleybus routes.

The data collection system should be redesigned so that it is in alignment with a new revenue distribution model.

- In order to support cost estimates and passenger forecasts, data collection should be improved and aligned with the strategy. This creates demand for new ticketing facilities.

Recommendations for medium/long-term action

Compensation funding coming from the government should be earmarked in the transfer of block subsidies to the municipality.

- The Ministry of Transport and Communication should negotiate on behalf of the municipalities with the Ministry of Finance on the required subsidises in order to maintain a high level of service for privileged passengers. The budget should be transferred directly from the Municipal Entity/Agency with a clear calculation of costs related to carrying privileged passengers at reduced ticket prices.

- Subsidies related to operating costs should be allocated on a separate budget line in the municipal budget.

The Agency should enter a service contract with the municipality securing a certain level of financing on the basis of a clearly defined set of responsibilities and tasks.

- The service agreement should be a two-year contract assuring financial stability for the agency. After two years, the contract should be revised and the agency should set new targets.

The cost of maintaining the infrastructure and rolling fleet should be transparent and part of the contract agreement.

- Detailed costs for such items as garages, offices, other buildings and the purchase of vehicles should be clearly stated. For trolleybuses there should also be some contribution to maintenance and renewal of the cable network.

Improving the decision-making process for defining levels of service

There should be a clear connection between the organisational level that defines the required service level (number of routes, frequency, kind of vehicles, etc.) and the financing level. In order to establish this, it is necessary to have the possibility to calculate operating costs and possible revenue from a single route in order to establish the level of required subsidies.

Each decision concerning an expansion or reduction of the current service level should be accompanied by cost-, revenue- and subsidy anayses.

Recommendations for reaching this goal include:

- Service levels should be defined by one authority (municipal) only.
- Service levels should be based on consumer demand and budgetary constraints.
- A single unit should assume management of all contracts, ensuring transparency and equal terms.

Defining the future role of Communication Services

In order to accomplish the strategy, a strong, professional and independent organisational body should be responsible for contracts and relations with operators, as well as the planning and management of transport services.

It must be emphasised that it is necessary to establish an organisation that has a clear definition of tasks and financial framework in order to maintain independence and professionalism.

Recommendations for short-term action

- A clear separation of roles must be defined between the municipality and Communication Services.
- Future tender procedures should be planned (the municipality, with the assistance of Communication Services, should prepare a long-term plan for tendering of all routes).

Recommendations for long-term action

- The implementation of tendering procedures for all routes should be completed within five years (if it is not tendering for the bus or trolleybus system as a whole).
- The role of a future agency should be defined during discussions between operators, the municipality and Communication Services.

Adequate data on passengers and traffic

When the city of Vilnius invests in a new ticket system, it should also be used to facilitate and strengthen the collection of data concerning traffic.

Data on traffic is essential input for:

- planning and managing capacity of the network and routes (including supplementary vehicles during hours of operation — especially peak hours);
- optimising service operations (e.g. number of vehicles on the streets according to actual schedules for routes in the network);
- optimising the network according to passenger needs;
- dividing revenue (optimal splits for every bus departure in the normal system and for minibuses, which will undoubtedly involve great cost); and
- providing input during discussions and decisions (political and otherwise) concerning general service levels (e.g. the number of departures from specific locations at particular times of day).

New technology with on-board computers, automatic bus-positioning systems (often based on global positioning systems) and computerised ticket machines enable a great deal of automatically generated data about traffic, which (in theory) can be easily collected and processed by computer. Planned and used in the right way, these systems can deliver very useful management and planning information, but they also are expensive and costly to maintain.

It should also be noted that these systems cannot produce data concerning what passengers do before and after entering the public transport system, indicating that there is no precise information about passenger origins and destinations. This sort of supplementary data is needed when planning networks and route services.

Conclusions

In general, the Lithuanian public transport sector lacks the financial resources or revenue from fares to finance the actual costs of operators. Additionally, the level of public subsidies is unstable — due not only to the budgetary relations between the state and municipalities but also internally in Vilnius Municipality.

In reality, Communication Services has insufficient influence on private operators. This clearly has a negative effect on the overall coordination and integration of the transport system as a whole. The future role of Communication Services is highly uncertain due to political and economic factors.

The actual tendering procedures and licensing carried out by the municipality (mini-buses) is characterised by a lack of transparency and has resulted in competition on the streets — and less competition in the tender procedures.

The system of licensing to different operators and the planning of routes and lines is not integrated. Similarly, the different ticketing systems are not adequately integrated.

However, the establishment of Communication Services has been a good initiative and an important first step in creating a competent organisation of the public transport sector in Vilnius.

Communication Services has, after a problematic start-up period and difficult situation in general, demonstrated good personal skills and relevant competence. Even though the financial situation has been and still is problematic, a successful investment plan has been implemented, which resulted in about one-third of all buses and trolleybuses being less than five years old in 2001. Moreover, due to the activity of Communication Services, LTL 2.1 million has been saved each year.

During recent years, passenger information has, to some extent, been improved in the form of updated maps, signs on buses, information at bus stops and information on the Internet.

The existence of new bus operators on the street has strengthened the passenger's ability to choose between alternatives, and has provided incentives for improved service from operators.

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Appendix

TABLE 7

Vilnius public transport data summary: 1996-2003

Year	1996	1997	1998	1999	2000	2001	2002	2003
1. Operational network length (km)								
Municipal buses			590	612	612	669	709	710
Municipal trolleybuses	376.9		373.3		429.7	429.7	418.7	423.3
Private operators (buses)			202				261	
Private operators (minibuses)			649.3				776	
2. Number of vehicles per mode (on routes)								
Municipal buses			214	221	201	215	220	224
Municipal trolleybuses			242	249	245	250	252	258
Private operators (buses)			84			90	62	
Private operators (minibuses)			319			380	359	
3. Number of lines per mode								
Municipal buses			57	56	57	60	63	62
Municipal trolleybuses			17	17	18	18	18	18
Private operators (buses)			17			19	19	
Private operators (minibuses)			74			51	62	
4. Number of trips (per Vilnius inhabitant)		1.43						
Municipal buses								
Municipal trolleybuses								
Private operators (buses)								
Private operators (minibuses)								
5. Average length of trip (km)								
Municipal buses		3.01				3.46		
Municipal trolleybuses			4.45				5.05	
Private operators (buses)			8.89				7.85	
Private operators (minibuses)			7.39				7.05	
6. Average stop distance (According to Lithuanian standards, the distance should be 500m.)								
Municipal buses		636				640		
Municipal trolleybuses			548				550	
7. Average public transport speed								
Municipal buses		18.75	19	21	22	23	23	
Municipal trolleybuses			17.00	17	17.8	17.8	17.8	18
Private operators (buses)			26.94					
Private operators (minibuses)			26.15					
8. Passengers transported per year								
Municipal buses			107,500,000	98,109,050	93,872,697	107,378,979	116,750,084	126,274,912
Municipal trolleybuses			127,400,000	131,387,643	129,629,364	129,966,072	132,089,872	136,793,404
Private operators (buses)								
Private operators (minibuses)								

TABLE 7 (CONTINUED)

Vilnius public transport data summary: 1996-2003 (LTL figures given in thousands)

Year	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**
9. Operational costs per year (LTL)								
Municipal buses			44,558	41,983	38,094	42,143	45,372	47,736
Municipal trolleybuses			46,727	41,217	38,900	42,529	45,860	46,657
Private operators (buses)								
Private operators (minibuses)								
10. Municipal budget (LTL)	383,300	447,400	583,100	510,100	455,100	487,500	533,586	569,705
11. Investments (LTL)	40,540	38,420	11,077	25,196	5,856	0	0	0
Municipal buses	22,660	19,340	5,077	14,216	0	0	0	0
Municipal trolleybuses	17,880	19,080	6,000	10,980	5,856	0	0	0
12. Allocated sum to PT for compensation (LTL)	23,000	20,000	20,200	20,000	14,650	16,500	29,004	30,000
13. Current percentage of the municipal budget allocated to PT (indicating the division between operating costs and investment)								
Operation	6.00%	4.47%	3.46%	3.92%	3.22%	3.38%	5.44%	5.27%
Investment	10.58%	8.59%	1.90%	4.94%	1.29%	0.00%	0.00%	0.00%
14. Ticket revenues (only municipal operators, LTL)	39,449	37,971	46,166	55,724	56,987	58,560		
15. Revenue/cost ratio								
16. Vehicle/km (million km)								
Municipal buses		14.41	14.14	13.52	14.90	15.73	16.29	
Municipal trolleybuses		16.70	15.90	14.60	14.64	15.04	15.65	
Private operators (buses)							3.5	3.18
Private operators (minibuses)							33	26.88