

The need for a Metropolitan Transport Authority in all urban metropolitan areas: progress made in establishing Bucharest Metropolitan Transport Authority



Urban and periurban public transport is the main instrument in promoting development, in improving life standards and social integration, with a key contribution in facilitating access to jobs, health services and education. Development and modernisation of this public service, the increase in quality and user-friendliness and a shift of overall operations towards meeting the mobility needs of the population may contribute to a drop in the use of private cars and therefore, to a decrease in pollution, from which the environment and life quality would benefit, particularly in the urban areas.

A major requirement in implementing PTS (Public Transport Services) objectives in terms of quantity and quality development is the adoption of institutional measures that would set up an organisational framework and ensure management and monitoring of the provision of such service and integration and coordination both at local and regional level of the above-mentioned service. A good practice regarding the operation of local and metropolitan public transport management bodies is currently met at European and international level, which sets a good example worth being followed by recent EU Member-States such as Romania. In line with the above, the European Association of Transport Authorities promotes good practice examples of member authorities operating in this field, which may be a source of inspiration for such cities in countries where the PTS improvement is underway in all regards.



In the past years, Romania has witnessed a set of measures aimed at adopting a legal framework and implementing organisational and institutional systems either for setting up metropolitan areas around major urban agglomeration and intracommunity development associations such as the cities of Oradea and Iași, or by studying the establishment requirements of a transport metropolitan authority, such as the case of Bucharest, the Capital city.

The main aspects that need to be taken into consideration for the establishment of a metropolitan body aimed at ensuring management of public transport are the following:

- the geographical coverage of the authority operations depending on mobility factors and economic, social and cultural interests of the population;

- **the functions of the metropolitan area:** in order to determine the authority involvement in the public transport management process, twelve (12) basic functions have been identified and reviewed, as follows: 1. strategic planning of public transport systems; 2. short-term planning, operation management; 3. infrastructure planning and monitoring; 4. regulations for operator relations; 5. fare policy and fare integration; 6. public asset funding; 7. operator funding; 8. marketing, communication, passenger information and market studies; 9. preparation of technical studies, market studies and data updating. Other indirect functions are the following: 10. development of legal framework and standards; 11. coordination with the Authorities responsible with traffic and street management; 12. coordination with train use planning;
- **Metropolitan Authority management,** split in three (3) zones: decision-making zone, executive zone and consulting zone;
- **the funding of the Metropolitan Authority** for current transport operations, system and rolling stock development and upgrading;
- **Metropolitan Authority organisation,** including organisational chart and maximum number of staff, operating costs and revenue and expenditure budget;
- **legal procedures** for the establishment of the transport authority.

A recently prepared study for the establishment of Bucharest Transport Metropolitan Authority (BMTA) has presented the concrete measures that need to be taken in order to implement this initiative. It is worth mentioning that Bucharest and its surrounding area (i.e. Metropolitan Transport Authority) shall ensure integration of all transport modes that are in operation at this time: bus, tram, trolley, metro, minibus, regional train, regardless of whom the operators report to: local governments, Ministry of Transportation, private operators and shall also ensure development and upgrading of transport infrastructure on the short, medium and long term.



The establishment of BMTA would enable successful implementation of contractual relations with each operator on the basis of PSC (Public Service Contracts) prepared in accordance with the new EU regulations in order to increase PTS efficiency and quality.



A set of measures have already been taken before the establishment of BMTA; some of the above measures are the result of activities carried out within the CAPRICE Project. Among them, the following are worth mentioning:

- integration of Public Transport carried out by the two main Bucharest operators (i.e. R.A.T.B. and METROREX S.A.) by implementing in the underground metro system a contactless ticketing system that at this time is partly in operation in the surface transport system;
- implementation of transport management system throughout the city, by expanding the system that is currently in operation in the central area;
- restructuring of R.A.T.B. operator for on-surface transport using bus, tram and trolleybus following the good practice examples of CAPRICE Project partners, in order to determine the volume and structure of PTS that are the scope of PSC, apart from other collateral activities deemed as ineligible within the contract entered into with the local administration.

Fares, ticket sales and sharing of revenues in the Ile-de-France region



The Ile-de-France region has a population of almost 12 million and a single transport authority, the STIF (Syndicat des Transports d'Ile-de-France) which organises the whole transport system: buses, coaches, trams, the metro and trains. Services are operated by two public enterprises, the RATP and the SNCF, and some 80 private companies.

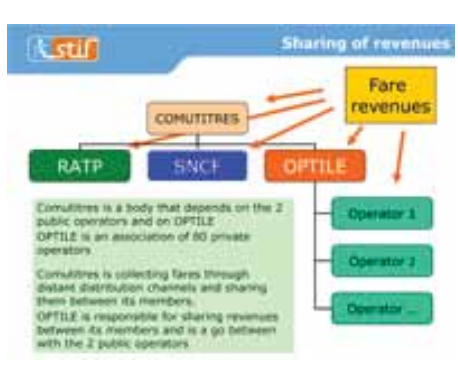
These operators run a combined ticketing system. Season tickets (weekly, monthly, annual) account for roughly 80% of journeys and 65% of revenue. They are issued for one or more of six concentric zones and take the form of a NAVIGO travel pass, a smart card that the holder swipes over an electronic reader.



The T+ ticket is valid for all buses and the underground system. In the case of trains, tickets are specific to each point of departure/destination and can be purchased singly or in books of ten.



There is an annual reduced season ticket for schoolchildren and students, with 800,000 ticket holders benefiting from this concession. In addition, reduced rates are granted to approximately 1,300,000 people, depending on their means, with some categories travelling free of charge.



Receipts from ticket sales, which amount to more than three billion euro, are shared among the operators which come under the STIF umbrella, according to rules set for the different types of fare. Where season tickets are concerned, the STIF has a formula based on the use made of the different operators' services. For example, in the case of a season ticket covering zones 1-5, the lion's share will go to the SNCF, because users will have travelled a considerable part of the total distance by train. On the other hand, the bulk of receipts from

season tickets for zones 1 and 2 go to the RATP, which operates almost all services in the zones concerned.

The private companies have their own association, OPTILE, which represents them where the sharing of receipts from ticket sales is concerned. There are therefore three main players, RATP/SNCF/OPTILE, and this makes it possible to share out revenues without recourse to a special 'clearing house'. The STIF has initiated consultations on how to adapt this system in preparation for the changes that will result from the introduction of the PSO (Public Service Obligation) Regulation.

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RATP/SNCF/OPTILE are partners in GIE COMUTITRES, the body responsible for distributing annual season tickets and managing the NAVIGO travel passes. COMUTITRES manages databases on customers and receives payments for distribution among the transport operators. The role of COMUTITRES will become even more important with the increase in electronic ticketing and the development of new distribution channels.



Receipts from fares account for approximately 40% of transport operators' income, and the STIF sets annual targets for them in their contracts, which are of four to six years' duration. Risk in relation to the level of receipts is shared on a 50/50 basis between STIF and the various operators.

5th CAPRICE Workshop in Poland on 'Tariff integration, sales, sharing of revenues and electronic ticketing'



The fifth workshop of the CAPRICE project was hosted by ZTM Warsaw during three days from 16 to 18 June 2010. The aims of the workshop were first to exchange and discuss different fare systems of public transport in European capital regions, including the latest developments of electronic ticketing among the partners. At the end of the workshop, several good practices were identified in the field of ticketing and recommendations for integrated fare and sales systems and electronic ticketing were drawn.

ZTM Warsaw was the first partner to present the fare system currently in force in Poland's capital. Two zones have been defined: a central one for the City of Warsaw and another one regarding the outskirts. Tickets are valid in zone 1 or 1+2 only, short-term and long-term travel cards are accepted by the railways ('common ticket') and partnership has been set up with local operators. As of April 2010, 3/4 of the revenues resulted from three main types of tickets: 30-day tickets (41%), 90-day tickets (23%) and single tickets (11%). In 2008, as the fare system had not been modified since almost eight years, some changes then occurred taking into account the average inflation rate of 18% as well as the increase of public transport equal to approximately 75% over the same period. The main goal of changes was to improve the fare revenues by approximately 26%. This was done thanks to the creation of new tickets (20 and 40-minute tickets, including possible changes) long-term tickets more expensive (+18%) as well as mid-term tickets (+30% for zone 1 and +50% for zones 1+2, single tickets (+17%). Seniors' ticket was revised and a new social discount was set up. ZTM Warsaw also explained the history of the Warsaw City Card (WCC) from its very beginning in 1994 when the French company Monetel won the city tender for the elaboration of a new fare collection system to 2008 with the latest developments such as the possibility to personalize the card. The WCC is a contactless smart card (pocket-sized) with embedded integrated circuits able to process and store data, receive processed input and delivered as an output via radio frequencies (distances up to 10 cm). That technology makes the use of such a card very easy, besides being



more durable than magnetic or chip cards which need physical contact with the reader. The WCC infrastructure is developed throughout the City of Warsaw (validating machines) and in any type of transport modes (buses, trams, rapid municipal railway, stations, depots...). Tickets encoded on the WCC gives a right to travel by bus, tram, underground, trains (Municipal Rapid Railway (SKM), Mazovian Railway (KM), Warsaw Local Railway (WKD) and selected trains of Regional Railways



(PR)) including the local public transport network in two communities: Lesznowola and Piaseczno. Travellers can choose among different WCC types of tickets ranging from the 24-hour to 90-day travel card, seniors' travel card (yearly) as well as free ride for employees and entitled passengers. The sale network is widespread in the whole area. It includes ZTM Passenger Service Centres, Post offices, vending machines but also the possibility to buy tickets via the mobile phone and via Internet as of 2010.

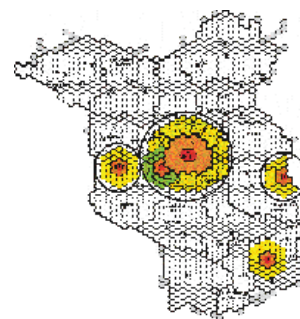
Ticketing system and tariffs in Lithuania were outlined by **MESP Vilnius**. All tariffs are set by Vilnius Council and a flat rate system still exists. Several price increases occurred in 2001, 2005, and 2009. As for discounts (50% and 80%), they are determined by national law of transport concessions. As far as the revenue sharing is concerned, MESP manages ticket revenues, compensations and subsidies at first level. The amount available is then usually split between trolleybus operators (40%) and bus operators (60%). Vilnius e-ticketing responsibilities are shared between the municipality and MESP. While the former is responsible for on board equipment and computers, printers, validating machines, GPS antennas, ticket control equipment, real time devices at stops, data servers, the latter is in charge of producing, administrating and distributing e-cards, providing information to real time devices as well as passenger control and e-ticketing systems data exchange between cities. Nearly ¾ ticket sales come from the Lithuanian press (72%). It is also interesting to notice the constant development of ticket sales via internet in 2010 (average of 6,500 units per month) compared with an average of 3,600 units per month two years before (+80%).



Ticket systems in **Bucharest** are of two types. On the one hand, RATB (Regia Autonomă de Transport București) offers an open system with 3 tariff zones (of which one is urban), paper tickets (to be replaced) and contactless cards (since 2007). On the other hand, METROREX (Metroul București) has a closed system throughout a single tariff zone with free connection between lines using magnetic cards (since 1995) and contactless cards for M-RATB common season tickets (since 2007). Today's ticket integration is on the move. Only monthly cards are integrated and only RATB commercial structure is used to selling and re-loading e-tickets. However, some steps have still to be overcome such as the extension of the common tariff to the most popular tariff products, the installation of e-ticket facilities on METROREX commercial network, the elimination of paper tickets as well as providing e-tickets for all passengers (reduced fares for seniors, students, etc) and imposing the validation of all cards onboard RATB vehicles. At mid-term, full tariff integration is expected to have a significant increase of public transport attractiveness for the common passengers together with a possible increase of revenues due to a more attractive common tariff offer. Besides, there should be neither extra expenditure for the extension of the current clearing house procedure nor significant impact related to the operating subsidies coming from different sources.



In Germany, the **VBB** fare system is unified and offers a continuous ticket for both states Berlin and Brandenburg since 1st April 1999. The system is based on 1,500 honeycombs. Small cities have one local city ticket while large cities (Berlin / Potsdam / Cottbus) offer AB tickets (city area) and ABC tickets (city area and surrounding areas). Regional tickets are based on honeycomb tariff (up to 25 km) or linear-distance tariff (from 25 km). VBB Berlin-Brandenburg typologies of current travel tickets are divided into standard tickets (single, daily, group, tourist, Brandenburg-Berlin ticket) and seasonal tickets (7-day, monthly and annual tickets as well as subscription).



The operators are responsible for selling and controlling the tickets. The latter can be bought either at operators' sales offices (larger stations) and agencies or from vending machines (stations, trams and busses in Potsdam, Cottbus and Frankfurt/Oder) or directly at the bus driver (everywhere except Potsdam, Cottbus, and Frankfurt/Oder). In Berlin, drivers sell standard tickets to a limited number of destinations only. In Brandenburg, all destinations and also seasonal tickets (up to monthly tickets) are sold by the driver. In 2009, VBB drew the majority of its revenues from the Berlin area (around 80% of the total amount of 1,024 million €, including standard and seasonal tickets). VBB revenue sharing process is as follows: passenger buys a ticket from one operator who keeps 5% or 10% of the revenues (supposed to cover the operating expenses of ticket sales). The remaining 90% / 95% of the revenues are pooled and shared according to the passenger-kilometres (55-90%) and the number of passengers (10-45%). The number of passengers and the passenger-kilometres are estimated every three years through passenger surveys that all operators have to carry out under the lead of VBB. Operators have to report monthly and annually their revenues to VBB who then calculates which operator gets which share of the revenues.

Ticketing in **Paris and Ile-de-France** is composed of travel passes (seasonal tickets representing 80% of all uses, 68% of income, 35% financed by subsidies and 40% users benefit from discounts based on social grounds) and single and daily tickets (representing 20% of all uses, 32% of income and 40% financed by subsidies). Occasional tickets and passes also exist: ticket t+ (valid in metros, tramways, buses, 460 million units sold per year and 4.9 million residents of Ile-de-

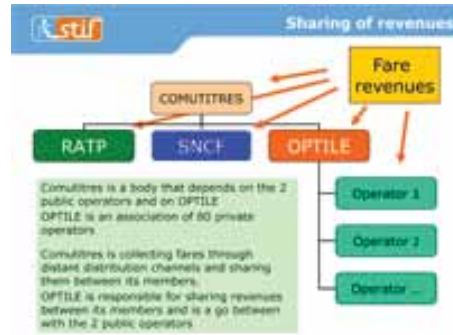


France), train ticket (valid on RER and trains, representing 140 million units sold per year and 3 million residents of Ile-de-France), Mobilis pass for 1 day (5.3 million units sold per year) and Paris Visite (tourist pass for 1, 2, 3 or 5 days, 2.6 million units sold per year). In total, STIF ticket income

amounted to EUR 3,173 million in 2008. Tariffs in Paris and Ile-de-France are fully integrated. Single basic tickets (valid on all buses and subways) are shared by 80 different companies according to use, measured by validations for all companies except RATP (Régie Autonome des Transports Parisiens). Single rail tickets are shared by the two rail companies SNCF (Société Nationale des Chemins de Fer) and RATP, each of them receiving the part corresponding to its network. Season tickets are valid inside specified zones for any public transport service and are shared according to use based on fixed coefficients. For some season tickets, the revenues are shared between SNCF and RATP only. In this case, private operators get compensation from STIF which is equivalent to the share each of them should have



received. The operator carries a limited risk on fare revenues only: 50% within a 3% band width (+3% or -3%). STIF ticket sales are carried out through traditional distribution channels (ticket counters, vending machines and commercial agencies) while new distribution channels are developing: contactless ATM (Automated Teller Machines), Internet, NFC (Near Field Communication) enabled mobile phones. STIF Paris Ile-de-France has been committed to a reflexion about electronic ticketing. Indeed, from the passenger's point of view, this appears easier to handle and more reliable. Passengers are charged according to their real usage (pay-as-you-go) and a charging according to the daytime becomes possible (peak time vs. off-peak). From the operator's point of view, maintenance is cheaper. Transport Units (TU) are considered in Paris and Ile-de-France to replace tickets and possibly lead to a higher number of customers using season tickets. Passengers buy TU (loaded on contactless card) which are consumed according to the real distance travelled (known through the check-in and check-out validations). Consequently, they do not have to be aware of the cost of each elementary use they make of public transport service.



CAPRICE recommendations



Recommendations on integrated ticketing and revenue sharing were developed from the 5th CAPRICE workshop held in Warsaw from 16th to 18th June 2010 during which all partners shared their views and experiences about that issue.

Recommendations at regional and national level

- Metropolitan areas shall introduce integrated ticketing systems allowing passengers to travel from one point of the area to another with one ticket only no matter which means of public transport the customers use. Therefore, public transport authorities have to be enabled to set up complex tariff systems for their areas which do not end at the administrative boundaries of the city but which include the surrounding commuting areas. Public transport authorities have to be further enabled to set up background systems for the sharing of the revenues among all operators involved. This has to be regulated in the service contracts between the operators and the authorities.

- For social reasons, the public transport authorities have to be responsible for the tariff system and for the price level of public transport in metropolitan areas. A long-term strategy should be set up in order to allow a holistic development of the public transport system.

- In some countries, regional railway services are not integrated into metropolitan ticketing systems due to the fact that the railways are operated by the national railway company or private companies and the regions do not have influence on the operator. Therefore, the national level as owner of most railway undertakings should take usage of their influence to integrate tariffs with local public transport. On the long run, this is profitable for both sides as new passengers can be motivated to use local

public transport and railway services thanks to integrated tariffs.

- Electronic ticketing systems have strong advantages for passengers and operators. Therefore, the introduction of electronic ticketing in metropolitan areas should be supported by regional, national, and European level. Setting standards on national level allows passengers to use the same system in different cities. This reduces constraints in usage of public transport systems in other cities.

- Not only the tariff system but also the ticket sales have to be integrated. Ticket sales should not only be based on ticket machines but also on sales offices (for customers who are not familiar with the public transport system) and on new systems as the Internet of mobile phones. An operator's bonus for selling tickets can be helpful to guarantee good services to the customer but to high margins can lead to a sales competition between the operators (e.g. with different offices next to each other) which is no longer fruitful.

- Integrated tariff systems also need integrated customer information that covers all operators in one area since the tickets are valid for all means of public transport in the system.

Recommendations at European level

- Integrated ticketing systems require a full participation of all transport operators and all modes of transport. On the regional level, authorities understand integrated ticketing more and more as one of their key tasks. European policies should support this process by setting the framework for integrated ticketing systems. A first step could be the support of international tariff co-operations in metropolitan regions which are separated by national borders.

- Electronic ticketing has big advantages for passengers and operators and can help cutting costs for transport authorities. Nevertheless, the investments costs for the introduction of electronic ticketing systems often are too high. Therefore, the European Union should support the investment costs of integrated electronic ticketing systems which cover all means of public transport. Additionally, the European Union shall support the standardisation of electronic ticketing systems in Europe in order to make available that in the future passengers can travel with their personal public transport cards in various European cities' public transport networks.



European events & meetings



Save the date ! CAPRICE Project final conference is coming up in little more than 5 months now. This very special event will be held in Paris on Thursday 17th March 2011. More information to come soon.

A large series of events related to public transport in urban areas is regularly organised or promoted by different institutions, networks and associations at European and international level such as EMTA, POLIS, CIVITAS, CODATU, UITP-European Union and EUROCITIES.

EMTA

11-12 November: Autumn General meeting, Barcelona (Spain)

For more information: www.emta.com

POLIS

28 October: FREILOT, Urban Freight Energy Efficiency Pilot launch in Helmond (Netherlands)

15-17 November: CIMO event 'Congreso Internacional: los Ciudadanos y la gestión de la Movilidad', Madrid (Spain)

17-19 November: VANGUARD Technical Training on Mobility Management, Szentendre (Hungary)

18-19 November: Mediate - Access2all Final Conference, London (UK)

25-26 November: Annual Polis Conference, Dresden (Germany)

For more information: www.polis-online.org

CIVITAS

3-4 November: CIVITAS CATALIST Car-Sharing supports Public Transport, Bremen (Germany)

18-19 November: Training on mobility management with a focus on company travel planning, Budapest – Szentendre (Hungary)

For more information: www.civitas.eu

CODATU

25-27 October: CODATU XIV – Conference on 'Sustainable transport and the quality of life in the city' (Sub-themes: Policy of urban transport, the offer of services of the sustainable transportation, the individual motorized transport, agent of the sustainable urban mobility, how to improve the quality of public transport?, urban transport in major cities in Argentina), Buenos Aires (Argentina)

For more information: www.codatu.org

UITP – European Union

25-27 October: 9th Training Programme for Public Transport Managers (1st module), Valencia (Spain)

17 November: 2nd Combined Mobility Platform Workshop, Brussels (Belgium)

22-24 November: Training Programme on Public Transport Fundamentals, Brussels (Belgium)

1st December: 2nd Automated Metro Seminar, Barcelona (Spain)

8-10 December: Security Training Programme, Brussels (Belgium)

For more information: www.uitp.org



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EUROCITIES

25-27 October: Mobility Forum Meeting, Utrecht (Netherlands)

30 November – 1st December: URBACT Annual Conference 2010, Liege (Belgium)

For more information: www.eurocities.eu

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