



## **PROPOSAL ON THE INTEGRATED MANAGEMENT OF PUBLIC PASSENGER TRANSPORT SERVICES IN A TERRITORY**

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*The European context of an increasing reliance on individual transport by extending road infrastructure is becoming less of an option. The great use of private cars, now accounts for 75 % of travel, leading to an enormous waste of resources. Faced with this background, Roman ŠTĚRBA has written this paper on Integrated Public Transport. Public transport system must be designed to be accessible and useable to the many hundreds millions European citizens who travelled permanently or occasionally. Essentially we face a choice: we can either allow our cities to develop among American lines or seek to revive out city centres and revitalise urban life. This can only be achieved through greater use of public transport. The paper proposes ways to make public passenger transport system attractive to the citizens and how it may be contribute to improving integration into common system. Based on professional know-how, the author defines a regional integrated public transport authority created by public administrative bodies in order to work up and to execute an integrated public transport supply. The authority plans, organizes and checks an integrated carrying network of all modes of public transport in urban, suburban and surroundings regional area. The major steps are being taken to improve the management of public transport by using a common carrying conditions and a joint fare structure to increase the quality of service and reduce its costs, in particular through the tendering of adequate transport services.*

**Key words:** Public Transport, Management, Integration

The urban areas where four out of every five Europeans live and work are engines of economic progress, cultural development, opportunity and entertainment. Towns and cities will only retain the cosmopolitan vitality if people can move freely and safely at prices they can afford. The urban areas will only be able to make their essential contribution to economic and social life if the public transport system works. If it does not, congestion, pollution and accidents will paralyse the cities and disable whole country. It is a realistic prospect.

### **Sustainable mobility**

An expected doubling of traffic volumes by the year 2020, the consequences of road traffic jams and congestion in terms of pollution (the annual cost for society of congestion in the 15 European Union's Member States is estimated by the OECD at 2 % of the Union's total Gross

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Domestic Product, i.e. more than EUR 120 billions every year), make improvements in public passenger transport necessary.

The traditional means of accommodating rising car ownership and the increasing reliance on individual transport by extending road infrastructure is becoming less of an option. The European context is alarming. The great use of private cars now accounts for 75 % of travel leading to an enormous waste of resources. Over the last 25 years, in the 15 countries which now make up the European Union, travel by car grew by 120 %. Of car trips over 60 % is covering a distance less than 5 km. CO<sub>2</sub> has gone up 25 % over the last 15 years. Car ownership in today's European Union countries increased between 1970 and 1999 from 232 for 1,000 people near to 500 for every 1,000 people.

There are also about 40 % of European households which don't have private cars. That means that in particular, public transit systems and vehicles must be designed to be accessible to more than 100 millions or more European citizens who, permanently or occasionally, have to deal with reduced mobility. Essentially, we face a choice: we can either allow our cities to develop along American lines or seek to revive our city centres and revitalise urban life. This can only be achieved through greater use of public transport. The responsible administrative bodies should analyse, discuss and suppose the ways to make public passenger transport attractive to the citizens by suggesting criteria for modern, user-friendly and efficient system and how it may contribute to improving integration of the public transport services into a common system. There is high time to create public passenger transport which brings free vitality to city centres by giving visitors access to them without filling up streets and squares with crawling road traffic and unsightly parking more attractive and usable for a better quality of life.

### **Land use planning**

The vast majority of millions European citizens live nowadays in an urban environment. Their demand for mobility has vastly increased. Whereas in the past normal day to day travelling were mostly being executed in and around the house, today, work, shopping and leisure are spread out in a wider circle. For most of these activities cars are used.

Public transport coupled with patterns of land use that make rail, bus and tram travel convenient for most, is one of the keys to bustling cities with clean air, safe streets and quite. Cities need to integrate their urban and transport planning actions so as to avoid creating a need for additional motor traffic. There are the questions of improving the integration of footpath, cycle path, rail routes and roads.

### **Integration of mass transport modes**

In order to work up and to execute an integrated public transport supply in a territory, as one of competitive alternative to cars, a regional integrated public transport authority is to be found by public administrative bodies. Impossibility of cities to finance alone a comprehensive upgrading of the public transport infrastructure together with a markedly improved range of integrated transport services is also why to found that authority. That one integrates both the *public service orders* and *transport operators* into a system with common standards. The authority plans, organizes and checks an integrated carrying network of all modes of public mass transport in urban, suburban and surrounding regional area. The integrated network serves the inhabitants well "from door-to-door" with neither territorial boundaries nor separated services provided by particular operators, which make travelling by public transport into or from or within a town difficult. The integration bases on sharing common carrying conditions, ticketing, timetables and information. The major steps are being taken to improve the management of public transport to increase the quality of service and reduce its costs, in particular through the tendering of adequate transport services like the bus

services in London, Prague or in French cities or like the rail services in Germany. Important is the integration of all modes of public transport into common system including e.g. park and ride and new rail links to airports, coupled with radical improvements in information and simplified systems of payment. Cities where public transport is flourishing have a few advantages. Employers have access to the wider possible choice of staff - and employees have a wider choice of jobs.

### **Requirement for information**

The public transport has to make a sufficient effort to provide passengers with clear, accessible, up-to-date information. It is necessary to develop a passenger information system in a pragmatic way guided by customer needs and by the technical and financial means available. I suppose that new approach should be realised at stops, stations, on boards and also in the area of electronic information (internet, w@p and automatic voice answer service). New applied information technology could give to the passengers more information in a faster and more flexible way. There is only a short step to the possible introduction of a fully electronic passenger information system with two main aims: to help people plan their trips in advance and also to inform passengers once their journey has started – in stations and on boards – about last-minutes changes to timetables, as well as delays on the line and the network. An automatic real-time information system can extract data concerning the position of trains (vehicles) from a central control system and information is selected and distributed to each station throughout a network. Actually, the arrival times are calculated and displayed on boards or monitors at station/stop platforms.

### **Charging of car traffic**

The introduction of road pricing (in addition to parking charges) now being pursued in a number of European Union countries would provide a promising solution. It would reduce both congestion (allowing public transport to offer a more attractive service and reducing their operating costs) and permit fares to be increased to cover a larger share of costs as well as providing a source of direct income which could be reinvested in public transport.

There are numerous operational examples of road user charging. The best known are toll bridges and tunnels where the user pays by cash or token on passing through a toll plaza. In order to increase the throughput of individual toll lanes various forms of automatic equipment have been employed, including electronic toll collection (ETC). A typical ETC transaction involves an electronic tag in the vehicle that identifies the vehicle and the debiting of a centrally-held account as the vehicle passes through the toll plaza. System can collect tolls without toll plazas or the need to impede traffic flow in any way. The two primary examples of this are Highway 407 outside Toronto in Canada and the Melbourne City Link in Australia. Both of these use sophisticated ETC systems which segregate users into three main groups: frequent users, infrequent users and violators – those who have not paid. A mix of technologies is used to collect the tolls from frequent users. Automatic imaging systems are used for number plate recognition of infrequent users and to detect violators. Experience of direct charging within a sector of an urban area is much more limited: the only real example being the Singapore Area Licensing Scheme. This was introduced in 1975 and used a paper licence system successfully until its replacement in 1998 by an electronic system. It is used to influence traffic conditions within the relatively small charging area. Tolls for entering the centres of the Norwegian cities of Bergen, Trondheim and Oslo were introduced in the 1990s. While both paper licences and electronic tagging have been used successfully, these schemes are essentially designed to collect revenues to pay for road investment.

While road pricing is seen by many professionals as the most effective mean of managing demand, parking controls are the most obvious alternative. Charging, particularly where a

local authority is the owner, needs to be integrated into an overall transport policy. Finally, payment systems need to take account of the increasing use of credit cards and decrementing smartcards.

Increasing taxes on motor fuels, coupled with the allocation of some of the proceeds (as in Germany) to funding public transport, could achieve some of the benefits of road pricing. Meanwhile other sources of funding can draw on the benefits which public transport creates for third parties, in particular employers (note the Versement Transport paid by employers in French cities) and property owners (note the tax proposed by the City of London to fund public transport improvements). In any case public transport investment by government is likely to be self-financing if viewed globally, taking account of the effect of public transport improvements on earnings, unemployment and rents and the corresponding impact on tax revenue.

### **Conclusion**

The needs of passengers and potential passengers must be put at the centre of decision making at local and regional level so that public transport becomes more directly related to the requirements of both current and future users. Public transport, in order to be able to attract a substantial increase in use, must be safe, clean, efficient, well-designed and affordable with easy connections between vehicles and systems and clear information. The realistic goals of transport policy are (firstly) to increase the quality of the means and of the integrated management of public passenger transport to level which invite those who are now dependent on cars and (secondly) to achieve everywhere a nexus of public transport system which fit so together that passengers can easily travel within modes, between both modes and among operators.

### **Literature**

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