

Perhaps a part of passengers, accustomed to the top quality services provided by the Warsaw urban transport, will be surprised by the fact that at the beginning of 1990s the situation did not look so rosy. Instead of low-floor buses, which engines meet very restrictive exhaust gas cleanliness standards, of gas-driven, hybrid, and electric buses, the worn and strongly smouldering Ikarus buses reigned supreme in the streets. There were no ticket machines on nearly every street corner, where it would be possible to buy a ticket. Drivers coming to stops by their four wheels could not leave them in a 'Park&Ride' car park. Obviously, they would be eager to transfer to the metro. Had it only operated then. And nobody even dreamt off about the SKM.

And exactly at that time, by the decision of Warsaw authorities, on 1 January 1992 the Public Transport Authority (ZTM) started the operation. Warsaw, as the second city in Poland – after Białystok – decided to separate the transport organiser from the operator, which remained the City Transport Enterprise (MZK) concentrating previously in its hand the entirety of the transport power. Warsaw used the British models and experience at the separation. It was to allow adapting the public transport to the free market economy developing in the country. The ZTM was also to carry out the transport policy on behalf of the city. The separation of the supervision and control functions from the operation function was a significant goal, and thereby the improvement to the public transport management efficiency and control. It was aimed also at introducing competitiveness in the city transport. Thereby the ZTM took over all tasks, apart from those related to the vehicles operation.

In the first year of the organiser activity the Warsawers were transported by 1681 Ikarus buses (short and articulated), 900 tram wagons (type 13N, referred to as 'sausages', and 105N), and 42 trolleybuses.

1990s.

The 1990s in the Warsaw transport can be specified as the years of hard basic work. A few solutions were introduced then, which on the one hand facilitate the use of urban transport to passengers, and on the other hand allowed for its more efficient management. The former should definitely include new, much better eligible timetable pat-

► Streszczenie

W artykule przedstawiono najważniejsze wydarzenia w rozwoju komunikacji miejskiej w Warszawie. Zarząd Transportu Miejskiego powołany został 1 stycznia 1992 roku i jest jednym z pierwszych organizatorów komunikacji miejskiej w Polsce, którego zadania od początku były oddzielone od zadań operatora. Autor opisuje rozwój komunikacji miejskiej w stolicy od początku lat 90., wprowadzanie udogodnień oraz kolejne działania związane z poprawą jakości komunikacji i rozbudową infrastruktury.



terns or the introduction – in 1994 – of the first low-floor Neoplan bus. The latter – the introduction of holographic protections on tickets, of destination boards, and team numbers on vehicles, or the appearance of a GPS – TADIRAN – navigation system in 1995.

Just in this initial period of ZTM operation also buses of the first private carrier – 'RAPIDUS-BUS' company – entered the streets, the first woman sat behind a Warsaw bus steering wheel, and a tram tourist line 'T', serviced by historical vehicles, entered the tracks for the first time.

The 1990s originated also the revolution in the stop infrastructure. Because at that time a few hundred canopy roofs appeared on the capital city stops, owned by a private company AdPol. Aesthetic and modern as at those years structures right away took passengers fancy. Although there were obviously their critics, who because of their glass roof called them street solariums.

We cannot also forget about the division of the operator, i.e. MZK, in 1994 into two independent companies. Warsaw Trams (TW), and the City Bus Plant (MZA).

In the mid-1990s also the idea of conurbation transport popped up. It was then, when the concept of establishing the Warsaw Public Transport Union originated.

► Summary

We have been serving passengers for already a quarter of century 25th anniversary of the Public Transport Authority (ZTM) in Warsaw

The paper presents the most important events in the development of the urban transport in Warsaw. The Public Transport Authority (ZTM) was established on 1 January 1992 and is one of first public transport organisers in Poland, whose tasks were separated from the operator's tasks from the very beginning. The author describes the development of public transport in the capital city from the beginning of 1990s, the introduction of conveniences and the subsequent actions related to improvement in the transport quality and expansion of the infrastructure.

► **Słowa kluczowe:** Zarząd Transportu Miejskiego w Warszawie, metro, organizacja komunikacji

► **Keywords:** Public Transport Authority (ZTM) in Warsaw, metro, transport organisation



Metro expansion in the 1990s.

In that period of the ZTM activity two events occurred, which contributed to important changes in the public transport. The starting of the southern section of metro line 1 was the first of them. Trains started travelling in the section from Kabaty to Politechnika. Three years later the metro was extended to the Centrum station. The whole line was already 'as many as' 12 km long. Warsawers, who initially treated the underground as a tourist attraction, quickly realised that it is definitely the best and fastest way of travelling in the city. Metro quickly started fulfilling also the city creating role. At the beginning of the underground operation the furthest south Kabaty station was situated 'in the middle of nowhere'. A few years later Kabaty were developed by residential buildings nearly to the last free patch of land.

Metro changed also the attitude to the planning of bus lines routes network. If before its commissioning buses were taking the entire burden of transport between Ursynów and the city centre, then with time their routes were arranged in such a way as to primarily deliver the residents to stations of the underground.

John Paul II pilgrimage and the ZTM

The visit to Warsaw, in June 1999, of Pope John Paul II, was the second important event. During the days of his visit Warsaw hosted nearly a million pilgrims. It forced the ZTM to organise a special transport, to open additional ticket offices and to start mobile passenger information. It was just on the occasion of this great challenge, that procedures and organisational schemes of special transport were developed, used later for many other important events or mass events.

A small titbit of information, the year 1999 was closed with the sales of 10.5 million tickets. While the sales value approached PLN 36 million. For com-

In 2008 the Plac Wilsona metro station was considered the nicest new metro station worldwide

On the left

All buses operating for the ZTM have low floor and a number of facilities for passengers

parison – the number of tickets sold exceeds now 80 million. And the average sales value is approx. PLN 900 million.

The beginning of 2000s.

The next period in the ZTM operations, i.e. the years 2000-2006, was marked by new challenges. One of them was the implementation of an entirely new ticket system. Tickets with a holographic strip printed on a thin paper were put to the lumber room. They were replaced with much more modern card tickets with magnetic strips. And punch validators disappeared from vehicles. Yellow boxes, operating up to date, were installed instead of them. One could even say they are not validators, but small computers. Whereas in the metro stations turnstiles appeared, operating up to date. And within the new system the Warsaw City Card appeared, that is an electronic proximity card. Warsaw was the first Polish city, which introduced such a modern solution.

Expansion of the tickets sale network

An intensive work aimed at the expansion of the tickets sale network was also started. In 2002 the first passenger service point (PSP) appeared in the shopping arcade of Świętokrzyska station. Because of that passengers willing to buy a ticket or to get the information about the urban transport functioning not longer had to go to the ZTM office, which at that time was in the Blue Palace at Senatorska street (former seat of the Zamoyski family). This solution worked perfectly. Therefore in the next years another two PSPs were commissioned; on the

► Ratusz-Arsenał metro station and in pl. Wilsona. Today already 21 such points operate. They are situated not only in the metro stations, but also in the biggest railway stations, in the airport and in one of shopping malls.

The next metro sections and the Rapid Urban Railway (SKM)

The ZTM systematically continued the metro expansion. The next five stations were commissioned in the years 2000-2006. The underground connected the Żolibórz district with the city centre.

The actions aimed at the introduction of competitiveness on the bus transport market in Warsaw were continued in 2003. The ZTM signed contracts with two new private carriers, ITS Michałczewski and Mobilis companies. The second of those carriers is servicing the urban transport lines up to date.

The year of 2005 brought the next breakthrough event in the public transport in the capital. Because another new means of transport – the Rapid Urban Railway (SKM) appeared then. Initially it was travelling only on the Falenica – Western Station route. Then it connected Pruszków with Rembertów. Today four SKM lines operate. They are served by modern, air conditioned and very comfortable trains. Thousands of residents of places close to Warsaw, such as Otwock, Sulejówek or Legionowo, cannot imagine another means for daily commuting, than just the SKM. The city thinks already about starting the next lines.

Park & Ride

We can refer to a breakthrough also in the context of another event. In 2006, at the Marymont metro station, the foundation stone ceremony took place for the construction of the first transfer car park in the 'Park & Ride' system. The car park was opened in the next year. Shortly afterwards the next ones originated. Today the Warsaw P+R system comprises 14 facilities of capacity from slightly less than 100 to more than 1000 parking places. Overall, it offers more than 4200 places. Car parks contain also places for disabled drivers and bicycle stands. The system very quickly turned out to be a great success. Many car parks are entirely filled every day. Warsaw has been thinking about the next ones.

Years 2007-2013

In the next period, i.e. in the years 2007-2013, the development of the urban transport gathered an even faster pace. In 2007 the agreement between the ZTM and the Koleje Mazowieckie /Mazovian Railways/ and the Warszawska Kolej Dojazdowa / Warsaw Commuter Railway/ took effect. Because of that selected ZTM tickets (from a daily 'upwards') started to be honoured in trains owned by those carriers. A common ticket became fact. It started to be valid not only in the area of Warsaw, but also in selected municipalities close to Warsaw. Two years later it covered nearly the entire conurbation.

The introduction of changes in the ticket tariff, which became more friendly to transferring persons, turned out to be a major step forward. Because time tickets appeared in the tariff. During their validity time it was possible to change the means of transport any times.

At the end of 2008, after 25 years, the construction of metro line 1 was finally completed. For the passengers use the last three new stations were commissioned, together with the Młociny transfer node, comprising a bus station, a tram terminus, and a transfer car park. And if we refer to the metro, we cannot forget about the next significant events. The Plac Wilsona station was considered the nicest new underground station worldwide. However, the signing of contract for the construction of the central section of metro line 2, i.e. a section comprising 7 stations and passing under the Vistula river bottom, was much more important. Its construction started in August 2010.

International cooperation

In 2008 the Public Transport Authority (ZTM) entered the European salons with pride. It joined the European Metropolitan Transport Authorities (EMTA). Because of that, under European projects, it became possible to organise foreign training for the ZTM staff, within which we were carefully watching the best practices used in the urban transport by other European metropolises.

And talking about Europe, we cannot forget mentioning about great successes in raising the EU funds by Warsaw. The total amount of received co-financing was approx. PLN 5.75 billion. These funds allowed not only to build the metro and to repair the tram tracks, but also to modernise the rolling stock.

Vehicles replacement

In the field of vehicles replacement Warsaw signed two 'contracts of the century'. In May 2009 the contract was concluded with the PESA company from Bydgoszcz to deliver 186 new, low-floor, single-space trams. The first ordered vehicle, with a sonorous name of Swing, entered the capital city streets in June 2010. The last – three years later. The second contract was signed in June 2011 for the purchase of 168 new low-floor buses. These were two largest such vehicle purchases in Europe. In turn, in 2011 four hybrid buses appeared on the streets. Tests of the first electric buses started in the next year – *inter alia* of Chinese brand BYD.

Euro 2012 and the system of city bikes

The year of 2012 was an exceptional year for the urban transport. The European Football Championship Euro 2012 took place in Poland in June. Warsaw hosted as many as five games. During all June the transport was in top gear. Temporary P+R car parks were opened and lines delivering to them. Also special lines travelled to the Fan Zone in pl. Defilad and to the National Stadium. Also the policing services and the



traffic supervision had their hands full. In particular on the day of Poland-Russia match, when there was a great row and fights between fans from both countries. During Euro 2012 buses travelled additionally 300,000 km, that is went around the globe 7.5 times. Had we arranged all additional buses one after another, they would cover a section as long as 4.5 kilometres. Trams travelled additionally approx. 130,000 km, and the metro – approx. 17,000.

But that year was exceptional not only due to Euro 2012. In the middle of summer holidays the city bike Veturilo was started. The early days were modest. Slightly less than 60 stations were started and bicycle riders had one thousand bikes available. Today 300 stations operate within Veturilo. Nearly 5 thousand single-track vehicles can be rented. Bicycles with characteristic ‘wings’ at luggage carriers were already rented more than 11 million times.

Changes in the bus transport

Also the next year turned out a success. Because of next buses delivery finally it was possible to withdraw Ikarus buses from the streets. Thereby, from 2013 all buses operating on the capital city streets on ZTM lines have low floor and are adapted to the needs of persons with various disabilities.

At the end of 2013 a contract was signed with the AMS company on the construction and operation of 1580 stop shelters. A private company obtained a city licence. It can earn on advertisements placed in the shelters constructed by it. The first new shelter was officially opened in October 2014. Ever since we can refer to a real revolution in the capital city stop infrastructure. The shelters put in place, in three types adapted to the city areas, are not only aesthetic but also functional. Today the project approaches the end. Less than 50 shelters are to be put in place.

For thousands of the conurbation residents the Rapid Urban Railway is the best way of commuting to Warsaw

A new tariff

Also in the next years the ZTM did not slow the pace in introducing improvements in the urban transport functioning. The next new ticket tariff took effect in 2014. However, it was not related to the rise, but even to the reduction of certain ticket prices. Residents of Warsaw and settling the personal income tax there obtained the right to a Warsaw Card, that is could buy cheaper long-term tickets and use the municipal and commercial sport, recreational, and cultural institutions on preferential terms. The replacement of single-travel tickets with tickets enabling transfers was also an important change.

UITP and FOT

Having entered the European salons the time came also to enter the global ones. Because the ZTM joined the International Association of Public Transport / UITP/. This is a global organisation, where public transport managers and operators meet, as well as research institutes, public authorities, and representatives of industry related to the transport sector. In the field of cooperation with other institutions involved in the urban transport management, also the establishment, in December 2015, of the Transport Organisers Forum /FOT/ was important. In the first stage it comprised 13 Polish transport managers. The FOT objectives include: exchange of knowledge and experience, learning the best practice, and development of new standards in the public transport organisation.

Crisis situations

The ZTM employees will remember the year 2015 also for another reason. And in particular 14 Febru-



On 14 February, the Valentine's Day. It started quite innocently. In the morning a new section of tram route along Powstańców Śląskich street was commissioned. Satisfied residents of Bemowo district could test the new route not only aboard modern, but also a historical tram. There were Valentine's Day balloons and sweets. Nobody then presumed that the Valentine's Day would be so flaming. A fire burst out in the afternoon, which resulted in a burned down part of Łazienkowski bridge, that is one of the busiest Vistula river crossings. Crisis procedures were implemented literally a few moments after the fire started. The urban transport planning in this area of Warsaw started nearly anew. And it went very well. Buses travelled not on temporary replacement routes, but on new permanent routes. If anybody would not know, that a bridge was fired, (s)he could consider that the transport should operate just in a normal way. The bridge was reconstructed and recommissioned in October the same year. During each rush hour 80 buses pass it, offering as many as 13,000 seats to passengers.

Metro line 2

On 8 March 2015 the central section of metro line 2 was opened. It connected Wola with Śródmieście and Praga Północ. Although at the beginning the trains were not travelling full, today many Warsawers cannot imagine the urban transport without line 2 of the underground. More than 670,000 passengers daily use both lines. The expansion of the new line started shortly afterwards. In May 2016 the works started in Praga Północ and in Targówek. Three stations originate there. Another three are also under construction in Wola, where the work started in the autumn 2016. The next sections will be ready in two years' time. Warsaw plans already driving the next sections – the last three stations in Targówek and five in Bemowo, together with a new technical-parking station, where the metro trains travelling on line 2 will 'stay overnight'.

Private carriers

The introduction of new high quality in the transport ordered to private carriers became a great

Warsaw invests in purchasing ecological buses

On the left

Warsaw urban transport was used by 1.136 billion passengers in 2016

achievement of ZTM. High requirements set not only to vehicles (buses must have low floors, be equipped with ticket machines, voice information about stops and a number of other facilities) but also to the technical facilities, where the vehicles are to be serviced, and also to the drivers, who must speak Polish, know the regulations and the city topography. Each driver and bus operating under new contracts must obtain a certificate from the ZTM before entering the city streets. As a novelty, also social covenants have been introduced. Drivers must be employed based on full-time employment contracts.

Kiss & Ride

Quite recent achievements of ZTM include e.g. starting special Kiss and Ride parking zones, enabling safe short stopping for drivers delivering passengers to the urban transport.

It is also worth to show off a systematic increase in the number of passengers. At the end of last year the urban transport registered the next frequency record. It was used by 1.136 billion passengers.

This way we reached the present time. But we can be certain of one thing – the ZTM does not want to rest on laurels. A lot of things are still to do in the urban transport. However, we will be in a position to inform the 'Public Transport' readers much earlier than after another quarter of century. ■



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