

**Associate Professor Wiesław Starowicz**  
**Director of the Transport Organization and Economics Dpt.**  
**at Cracow Technology University, Poland**

Opinion regarding the project

**„Metropolitan Individual System of Public Transportation - MISTER”**

authored by Mr. Olgierd Mikosza (MSc EE & CS)

As a result of the social and economic transformation in Poland after 1989, amongst many changes, there has been the accelerated development of private car ownership, with all its benefits and ills, as earlier experienced by the Western countries. The exponential growth in the number of cars increased road congestion, especially during the communication peak hours. Due to the lack of any remedial action, already existing symptoms of the ill functioning transport systems resulting from the overloading of the road networks in Poland, began to grow even more. Increased street congestion resulted from the growing number of private cars usage in the ever expanding areas and there was also an increase in the duration of serious traffic obstacles due to road repairs and lack of parking spaces. Negative effects on the quality of life, are manifested not only in travelling discomfort, but also in the many threats and unbeneficial phenomena of which the most serious ones are ecological issues and the reduction of the traffic safety level.

Traffic congestion caused by private cars has badly affected the movement of public transportation vehicles, especially buses. Communication speed, regularity and punctuality have dropped, the uncertainty of reaching destinations on time has increased.

It can therefore be stated, that the classical mass transport in the cities, at the turn of 21 century, is ridden with crisis resulting from lack of financial resources to provide quality in the transportation process (punctuality, comfort, frequency, certainty and regularity) in accordance with passengers expectations. Therefore public transport is slowly becoming a counterweight to private individual transport, which is causing large problems in city traffic.

This state will exist until a time, when there is a possibility of a major influx of funding for city transport systems, or until a time when a new technical and organizational solution is found, which could quickly change the possibilities for new public transportation sub-systems development.

Current public transportation systems are very capital-intensive and nothing indicates the appearance of any extraordinary financial means to develop them further. What remains is

to wait for an idea for a solution, which would revolutionize public transport technologies, making this sub-system competitive with individual transport.

The concept of an individual, mass transport, city system, MISTER, devised by Mr. Olgierd Mikosza (MSc Eng.) might be this very idea. MISTER is a sub-system of mass transportation but with the properties of an individual sub-system both in terms of the vehicle (max of 4 persons) and the transit routing. This project has been filed by the author as an invention at the Patent Office.

MISTER is a new, futuristic system of city transportation for the public. It is characterised in that all trips are on passenger-demand in small, automatically controlled vehicles the size of taxis, between any two stations of light, aerial guideways of infrastructure within the transport network. MISTER solves the majority, if not all, of the problems of current transportation systems and at the same time significantly improves their economic and functional parameters. Vehicles are very light (200-300 kg), which translates into the lightness of overhead truss mono-rail and supporting columns.

The main assumptions of the MISTER sub-system were published in the scientific-technical journal "City and Regional Transport" (issue 1, 2006). In my judgement, the proposed solution, in the matters of :

- transport infrastructure (network of aerial truss rails supported by columns),
- light gondola vehicles,
- passenger stations and stops,
- computer system for optimization, control and traffic safety

are feasible with today's state of technology, automation, electronics and informatics. I think that the entire system is very likely and indicative of high usability and effectiveness.

I would like to encourage the Author to undertake work on two documents : a detailed business plan for the specific pilot project – which will enable to define more precisely the effectiveness of the undertaking, and to work on the technical project of the specific system elements, which will enable the identification of material requirements, as well as the requirements for the management of the entire undertaking.

Wiesław Starowicz

Cracow, 18 April 2006.