

Anthony Doesburg: Transit system better than rail, says engineer

By [Anthony Doesburg](#)

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Personal transit pods could whisk travellers to and from Auckland airport, argues designer.



A prototype of Ollie Mikosza's overhead transit system on show in Poland. Photo / Supplied

A Polish engineer who lived in Auckland for a decade has proposed a solution to the city's transport woes, but it appears to have fallen on deaf ears.

Ollie Mikosza has designed a personal rapid transit (PRT) system consisting of electric cars suspended from an overhead track that he says can be built for a fraction of the cost of alternatives.

When a rail link to the airport was on the Auckland Regional Council transport committee's agenda three weeks ago, Mikosza emailed councillors from Poland with details of his system and an offer he thought they would at least acknowledge.

By the time a railway line to the airport has been researched, designed and built, PRT would be well established around the world, Mikosza claimed in his email.

"PRT is 10 to 50 times less expensive than any rail for the same capacity. And PRT can be built much quicker, requires almost no land, less planning, is faster, safer and profitable in operation," he wrote to the councillors.

His tone might not have endeared him to the councillors – "spending public money on inefficient, deficit-running systems ... is not something that is good to be remembered for" – but Mikosza thought his offer of the system, free of licensing costs, could have earned a response.

But the silence "confirms that politicians just mind their backsides and have no imagination".

On paper, at least, Mikosza's system looks compelling. But getting it from paper to physical reality is proving such a mission that he might be excused for his mounting impatience.

The system, called MISTER – for metropolitan individual system of transportation on an elevated railway – is an idea born of impatience. In 1999 Mikosza was working as a software engineer in the San Francisco Bay area of northern California.

For his daily 40km commute, he either had to leave at 5am, or go an hour later and expect to be stuck on

the freeway for as long as three hours.

"I thought there must be a better way to lead my life than spend it in a traffic jam." Standing still is clearly not something Mikosza enjoys. He was born in Poland and found himself in the US after a decade in South Africa, followed by a decade in New Zealand, where he became a citizen.

His route to the US was via Asia and in 2002 he found himself back in Poland, in Opole, a city of 150,000 people.

"Now I've not so much grown roots again but got stuck for the past five years or so with this Mister project."

His design is for a lightweight – 60kg per metre – overhead track from which five-person pods, powered by small electric motors, are suspended. The unladen pods are also relatively light – 300kg – and can carry a 400kg load at 50km/h.

Mikosza says at about €5 million (\$9 million) a kilometre, it could be built for a fifth of the cost of light rail and less than a 10th of an underground railway's cost, and much more quickly and with less disruption.

Yet its passenger-carrying capacity over a given distance would be a match for a subway.

"Our system is designed to replace a subway, whether in Sydney or New York or London."

Stations would be about 150m apart and the computer-controlled system – similar in complexity to software Mikosza wrote to track 15,000 workers in a South African platinum mine – would take passengers directly to their destination without intermediate stops.

If Mikosza could get Mister off the ground, that is. He has got part way there by selling the family home and using the proceeds to build a working prototype that sat for some time in the Opole town square.

Last year he made a breakthrough with a €6 million European Union grant, which was matched by a Swiss investor.

The money was to have been used to build a track on land donated by Opole so the system could be safety-certified.

But the EU grant got tangled up in Polish bureaucracy and the Swiss money went elsewhere. The EU cash has since been released by Polish authorities but Mikosza now needs a new private investor.

If he can gain certification, five Polish cities, including Opole, have approved Mister projects, which puts him ahead of rival British, Dutch and Korean PRT systems that are being built on private land, including Heathrow Airport.

If Auckland stumped up with the money to certify Mister – less than the cost of an airport rail link feasibility study, Mikosza reckons – he would not charge a licence fee to build the system and would operate it on a profit-sharing basis. "I offered it to Auckland because I lived in Auckland for 10 years and I'm a New Zealander. It would solve the city's transport problems."

Personal transit

The Mister system is an example of Personal Rapid Transit – automated vehicles for individuals or small groups, travelling on dedicated tracks, direct from one point to another, without stopping at intermediate stations.

Many such systems have been proposed. One of the few to be built is at London's Heathrow airport and is due to open this year.

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