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# Legislative Council Inquiry into Integrated Transport Options

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**What's wrong with public transport?** There are *three main reasons* why people won't use it:

Its as simple as ABC.

- **A.** Public transport runs to a timetable; if you miss the bus or tram, you may have a long wait for the next one. And too bad if you need transport after midnight.
- **B.** Public transport does not take passengers where they actually want to go. Public transport runs on a radial system from the CBD, via main arterial arteries, and uses interchanges to change passenger direction.
- **C.** Most people want to choose their travelling companions, or even to travel alone. The anti- social behaviour of even one passenger can make for a very unpleasant journey.

We need to rethink public transport, in 21st century terms. Most submissions to this Inquiry will advocate old technology. Trains and buses and ferries all suffer from the ABC problems. People don't use public transport because it is not as convenient as their car. The answer is not to force people to walk, or cycle, or car-share against their preference; the answer is to provide a public transport system which meets their needs.

Please don't get me wrong. I support measures to reduce car usage, and to use healthier modes of transport. But I do not kid myself that park'n'ride and cycle lanes are the solution to our traffic problems. Public transport, to attract people to use it as the norm, must offer:
Low cost travel; convenience; privacy; security from harassment; the comforts of modern cars; cleanliness; service - all day, all night, every day, every night - on-demand; and, travel to where the passengers want to go. That is, it must offer individual mobility to match the car.

Portland, Oregon, is held up as a shining example of public transport in a modern city. But, even with the best technology available, the proportion of trips made on Portland's world beating system still carries only about 10% of travellers. The overwhelming majority of people in Portland travel by private car.

In its best-case scenario, Metro Tasmania does not expect to capture 10% of journeys. Car journeys, on the other hand, are expected to increase by more than 1% each year. For the Brooker Highway, that is an extra 1000 vehicles per day, each year.

The answer is not smaller cars, electric cars, diesel cars, or any other cars. There are already 820 million cars in the world. That number is expected to reach 1 billion by 2020, and 2 billion by 2050. How will they move about?

The answer is to have fewer cars on our roads by applying the benefits of private transport to public transport. That would free up the road for vehicles engaged in commerce. Take note of the number of buses caught in this traffic jam.

Traffic jams are a major threat to our economy. A $200,000 truck carrying cargo worth $300,000 sitting in a traffic jam is plain economic nonsense. That is apart from the driver's wages!

## The solution

Most people can only imagine what they have actually seen.

*I am going to ask you to use your imagination.*

Only a **Podcar system** offers a solution for all of the things mentioned. Podcars are a new idea. They use 21st century technology to provide a 21st century service, and overcome 20th century problems.

So, what are podcars?

- Podcars are computerised, driverless cars
- Podcars do not run to a timetable, but instead, run on demand - like a lift, or a taxi
- Podcars operate all day, all night - every day, every night
- Podcars are virtually silent; vehicles are powered by electricity and run on rubber tyres contained within a guideway
- Podcars run (mainly) on elevated tracks at constant high speed
- Podcars use off-line stations to maintain a direct, speedy service

- Podcar systems are designed to have a station within 300m of every person within the grid
- Podcar stations can be located inside shopping malls, airports, bus terminals, office blocks and universities.

- Podcars are lightweight, weighing less than one tonne, fully loaded
- Podcars seat three adults in each podcar, with room for wheelchairs, bikes and luggage
- Podcars can move more people per hour past any point than any other transport system
- Podcars are sometimes known as Personal Rapid Transit.

Hobart could be a showcase sustainable city. It has a manageable population of around 200000, but, like most modern cities, it suffers from traffic problems because it has been designed for commuting by car. Podcars have all the advantages of cars over public transport ***and*** all the advantages of public transport over cars, ***and then many more*** advantages of their own.

**Cost**

The cost of one system I investigated in 2011, is estimated to be about $21 million per kilometre. That figure includes the guideway, 35 vehicles for each kilometre of guideway, software, air-conditioning, and maintenance facilities.

By way of comparison:

**Adelaide**: the railway line in the south of Adelaide that is currently being extended to Seaford will cost $53 million per km, and will carry 3360 passengers per hour. A Podcar system would cost $21m per km, and carry 21,600 passengers per hour.

**Gold Coast:** the light rail system from Griffith University at Southport to Broadbeach - a distance of 13 km will cost $73 million per km. Podcars would cost $21m per km.

**Sydney:** the 17 km underground railway from Epping to Chatswood, opened in 2009, cost $2300 million. A podcar system could service many more people in that area for a cost of $735m.

**Melbourne:** A rail line to Doncaster is proposed at $70 million per km (The Age, 25 July 2012). However, urban transport commentator doubt it can be built for that price.

**Hobart:** the light-rail proposal for the northern suburbs is estimated to cost $85m. Unfortunately, it will go “where the people ain’t”. They still have to commute to the rail line, and from the terminal.

**Hobart:** The Kingston bypass cost $51m for 2 km! The Brooker Highway upgrade is estimated to cost $213m. Neither project will reduce car use.

It is little wonder that there is no money for hospitals and schools. That need not be so.

**An alternative funding mechanism: *Land Value Capture***

Infrastructure adds value to land. Any public transport system will add value to the land it services. That is so whether the transport system is road, rail or Podcars. The better the system, the greater will be the uplift in land values. That creates an opportunity for government to recover the cost of the infrastructure. The 'fixed cost' of the system can be recovered through a levy on land values within close proximity to the system. Not only is it possible to pay for any infrastructure project in this way, it is the economically preferred method. The running cost of the system could be met by fares, which could be kept very low if those who gain most from the improved transport system, the landowners in the serviced area, contribute towards it. That is both economically efficient, and fair.

This submission is not the right vehicle to go into detail about Land Value Capture, but there is a body of research to support the statement 'Public transport can pay for itself'. I can assist Members to access that research, if desired. For the scope of this submission, it is enough to state that it is simply wrong to suggest that public transport must be subsidised. An alternative funding mechanism does exist.

**Additional information:**

I have tried to keep this submission brief, and conceptual. That should not be confused with a lack of available data. I can provide further information on accessibility (disabled), safety, environmental considerations – noise, visual, emissions, energy use; passenger capacity; speed, relative to other public transport systems; and the benefits of improved security, better street lighting, removal of overhead wiring, reduced congestion, and less parking in the inner city and our public spaces.

Podcars are an idea whose time has come. Hobart could be a world leader in sustainable transport.

Thank you for calling for public comment. I would welcome the opportunity to meet with the committee to expand on this submission, and if possible to show a short video (2 minutes) that will demonstrate Podcars better than I can explain them.

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