



Attn: Committee Secretary
Transport and Public Works Committee
Parliament House
George Street
Brisbane Qld 4000

28th September 2018

By email to: tpwc@parliament.qld.gov.au

Submission to the inquiry into Transport Technology

This submission is made on behalf of Brisbane Residents United Inc, Brisbane's peak body for community resident actions groups. Whose purpose is to:

- Represent Brisbane and surrounding district residents and provide them with a united voice to Governments on matters pertaining to urban planning and development.
- Act as a resource centre, facilitating information sharing across established and start-up local resident associations.

Thank you for the opportunity to make a submission to Transport and Public Works Committee inquiry into Transport Technology. We make this submission in accordance with section 92(1)(d) of Parliament of Queensland Act 2001, and the terms of reference for the inquiry which are to consider in detail the challenges and opportunities which technology will bring to the transport sector in coming years including:

- A. identifying trends and changes in fuel type usage in the sectors of personal transport, freight transport and public transport, such as the increasing uptake of hybrid and electric vehicles
- B. examining the readiness of the transport network for increasing electrification of vehicles in coming years
- C. identifying other emerging technological factors which will impact on transport networks into the future, such as driver aid technology and 'driverless car' technologies
- D. examining how technology is affecting employment arrangements in the transport industry, particularly in the food delivery area

Systemic change

This inquiry comes at an exciting time in the development of several new and developing products and services in the transport industry. If implemented correctly by the State Government it could lead to changes that could revolutionise our economy and the transportation system in our state.

We propose that the State Government think about Transport at three different levels with different solutions for each. Those three different areas are:

1. **Long distance - Air, Sea, Road and Rail.** For a lot of long distance travel the air and sea journeys will remain much the same. We believe the rail network should be expanded to create major freight and tourism corridors with fast train services covering the major routes.

Tourism is one of Queensland's most important economic drivers and is a vital source of revenue in regional areas. Many tourist operators are small local businesses that make and spend their money in local towns and regional centres. Queensland is a vast state and the distances to major attractions can be daunting to tourists who are time poor and wanting to see as much as they can on their holidays for example the Whitsundays are 1100 km and Cairns is 1682 km from Brisbane. On a train travelling at between 300 to 400 km per hour you could be at the Whitsundays in approximately 3 - 4 hrs. You could be on the Sunshine or Gold Coast in half an hour.

This would actually make train travel a viable alternative to air travel and possibly even more convenient. This would also make certain areas accessible for commuters to city or regional centre based jobs.

The train network should also be expanded to include regional centres such as Warwick, Stanthorpe and Boonah. These areas represent a new growth area in tourism that we call agritourism. They are also close enough to Brisbane to provide an accessible area for rest and recreation.

2. **City or region wide.** This requires an increase in the rail or equivalent network. By decreasing freight traffic on highways and keeping it only to delivery corridors from the nearest rail yards, airports or ports we will also decrease both the traffic and wear and tear on our road systems. This will decrease road funding costs.

The transport that is most difficult to achieve using public transport is that where someone is travelling either across town or around a region making several stops. This is where most of the private traffic will be generated in the future. An example is a tradesman working in various suburbs.

3. **Local.** Moving around a local area should be easy using human powered (walking, inline skates, scooter, skateboard, cycle) transportation and electric scooters. With the advent of driverless cars this will lead to an entirely new concept of public transport. This will become almost a hybrid of public and private transport. For a lot of people this will mean they do not need to own their own car at all.

You have identify different types of transport:

1. Freight - Air, Sea, Road and Rail - (International, Interstate, Intrastate, Regional and local)

For long distance freight the air and sea journeys will remain much the same. We have an example in Queensland about the value of a regional freight hub in the Toowoomba Wellcamp Airport. This means produce from the Darling Downs region can be exported from farm to plate in record time to both overseas and interstate markets. This type of development could only be enhanced by high speed rail links.

It is time to ascertain the true cost of road transport of freight along major traffic routes. Heavy transport not only takes a toll on our road infrastructure but also has an adverse effect on road safety. It is time to put in high speed rail links between capital cities and major regional centres. This would mean that road transport could take place only at a regional level and essentially for delivery purposes.

2. Personal - Drone, Helicopter, light plane, jet. Boat. Human powered (walking, inline skates, scooter, skateboard, cycle) Electric scooter, Motor bike, Car, Motor Home

Personal air and sea travel will remain much as they are for the foreseeable future. The use of a personal drone for pickup and delivery within the local area may increase and if the development of personal jetpacks or hovercraft should improve that may become popular.

There is no reason to believe that we will all continue to own a private vehicle at all. If we consciously work to improve our urban environments we will be able to increase the use and safety of human powered transportation. For example seperate bike lanes and the promotion of shade and pleasant street scapes with good quality foot paths for inline skaters, scooters, skateboards and electric scooters.

People will hire vehicles for special or longer trips if they require one. Government will have to look at a new funding model for roads and transport infrastructure.

3. Public - Air, Sea, Road and Rail - (International, Interstate, Intrastate, Regional and local)

Public transport by sea and air will continue much as it does now. There should be a substantial increase in the use of the rail network which should be extended and improved.

Public transport as we think of it now needs to change. We need electric driverless vehicles that will pick up small groups of people to deliver them to local transport hubs. There they will board trains or larger vehicles to take them to central locations. Public transport needs to be clean, frequent, reliable, seamless in moving from one mode to another and affordable for all.

A. Identifying trends and changes in fuel type usage in the sectors of personal transport, freight transport and public transport, such as the increasing uptake of hybrid and electric vehicles

There will be an increase in all types of vehicles becoming at first hybrid but eventually fully electric vehicles. The move to fully electric vehicles has already begun in China and as this technology improves and reduces in price this trend will quickly take hold. Electric cars are more expensive at the moment but they are becoming less so as they increase in popularity.

The fuel costs are nowhere near as high as petrol or diesel and as renewable energy generation takes hold will actually become cheaper still. The batteries are already at the stage where the range can be well over 300 km and their recharge time is improving. As electric charge stations become more popular on major highways the change to electric vehicles will increase.

Electric vehicles are not as expensive to maintain as they have fewer moving parts, are virtually silent and have become faster and more responsive.

The change in fuel type usage will lead to many unexpected consequences and many opportunities for new industries and skills. For example motor mechanics will decrease but people working in the renewable energy generation will increase.

We should be encouraging research in the areas of new battery technology and renewable energy generation. The Federal Government has dropped the ball on these changes but that is no reason for Queensland not to become involved. The economic rewards are huge and this industry will lead to leap frog technologies and different ways of using transport.

We have already stated that we believe long distance freight transportation should be increasingly by rail with road transport only used to deliver from rail hubs. There is no reason why these trucks used for regional and local transport would not be electric as well. This is a trend that has already begun overseas.

B. Examining the readiness of the transport network for increasing electrification of vehicles in coming years

In petrol stations we have an almost perfect network of public charging stations while travelling. The infrastructure investments in these sites by companies will still be able to recover costs during and after the transition to electrification of vehicles. Many of them have food venues that mean that people can have a coffee or a meal as their car is charging.

One of the benefits will be a decrease in the number of delivery vehicles that are delivering fuel to petrol stations.

In China charging stations are being set up at large apartment buildings or at local neighbourhood sites.

C. Identifying other emerging technological factors which will impact on transport networks into the future, such as driver aid technology and 'driverless car' technologies

Driver aid technology will make driving safer and may mean that many people will be able to drive for a longer period that might otherwise have been the case. This will also be a great boon to disabled residents.

Driverless cars are going through the testing and improvement phase at present but there is no doubt that they will be a feature of our not too distant future. There will have to be the necessary changes to our legislative and regulatory framework.

Driverless cars are going to revolutionise our public transport system by making it possible for the first time to pick up and deliver small groups of people who are going to close but not the same destination.

With the use of computer technology a group of local people will be able to order a car that for example picks four of them up from within a local area within a few minutes and delivers them to four different destinations within the local area. This would lead to many expected and unexpected outcomes. For example public transport would become very responsive to peoples needs; if you were transporting a large item you could order a vehicle that allowed you to transport that item easily; elderly people could remain in their homes for longer as they just used this transport to move around their local area; people would get to meet more local people and interact with them.

This form of transport would link with longer distance transport options at local transport hubs. It would actually cut down on the amount of local traffic and on the amount of traffic generally as there would be far fewer vehicles on the road.

D. Examining how technology is affecting employment arrangements in the transport industry, particularly in the food delivery area

Taxi companies and Uber would cease to exist in their present form as would most food delivery companies. A lot of food delivery will eventually be done by drone or driverless cars as will more general postal delivery.

We have tried to foresee the social and technical changes brought about by these products. If they are embraced and changes made to our present transport system it will usher in an improvement in public transport with reduced cost, a decrease in traffic congestion and an improvement in the condition of our roads with a decrease in maintenance costs. There will be other unforeseen outcomes, but we believe the change will be positive and will benefit society as a whole.

Should you require any further information I can be contacted on [REDACTED]

We would like to appear before the committee if public hearings are held.

Yours sincerely
Elizabeth Handley
President
Brisbane Residents United Inc steering group