

# TRANSCRIPT

## LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

### **Inquiry into Expanding Melbourne's Free Tram Zone**

Melbourne—Tuesday, 9 June 2020

#### **MEMBERS**

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Mr Bernie Finn—Deputy Chair

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Ms Melina Bath

Mr David Davis

Mr David Limbrick

Mr Andy Meddick

Mr Craig Ondarchie

Mr Gordon Rich-Phillips

Ms Mary Wooldridge

Dr Catherine Cumming

**WITNESSES**

Ms Alexandra Lawlor, Executive Director, Estate Planning and Development,

Professor Majid Sarvi, Transport for Smart Cities, and Director, Australian Integrated Multimodal EcoSystem, and

Dr Peter Sweatman, International Enterprise Professor in Transport Technologies, Australian Integrated Multimodal EcoSystem, University of Melbourne (*all via videoconference*).

**The CHAIR:** Thank you and welcome everyone. All evidence taken at this hearing is protected parliamentary privilege, as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore the information you provide during the hearing is protected by law. However, any comment repeated outside the hearing may not be protected. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament. All evidence is being recorded. You will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

Before you start your contribution can you please state your name for the Hansard record, and allow us some time to ask questions. Welcome.

**Prof. SARVI:** I will start. My name is Professor Majid Sarvi. I am from Melbourne University, and I am very happy to be here.

**Dr SWEATMAN:** My name is Peter Sweatman. I am an enterprise professor at the University of Melbourne in the department of infrastructure in the school of engineering. I work with Professor Sarvi.

**Ms LAWLOR:** I am Alex Lawlor. I will be providing some background and Professors Sarvi and Sweatman will speak to item 4 of the terms of reference on the intelligent transport technologies. We also want to acknowledge that the current COVID-19 situation means that public transport use does need to be addressed differently but that an accessible, sustainable system is still vital for students, staff and the community.

The University of Melbourne is a major driver of both the city and state economies, as you would know. Our city campuses at Parkville and Southbank support a large student population—pre-COVID this was around 65 000—and they are places of employment for thousands of workers, not just academic and administration staff but all the support workers needed to run essentially a small city, plus all the food service and retail workers that rely on the student numbers surrounding the campuses. The public transport network is central to ensuring students, staff and visitors can safely commute to and from the university as well as between our two city campuses, Parkville and Southbank.

So there are some key things that were part of our submission, making an extension to the free tram zone important, and I will expand briefly on each. Firstly, it removes barriers to accessible transport. We know that many students struggle to meet the costs associated with travel to and from university, and this is even more pronounced for Indigenous students or those from low socio-economic backgrounds. In addition, the area around our Parkville campus is home to a large number of student accommodation facilities, and many students, including many of our international students, live and work in this area. So an extension of the free tram zone will make the city and services within the CBD more accessible.

Secondly, we believe it will enhance the student experience. Through the research we have conducted with our students we have found that the journey to and from campus is a key factor in influencing student experience of the campus and to a certain extent their attendance. There are some students who attend classes at both Southbank and Parkville, and a free tram zone that encompasses both would benefit these students in terms of both cost and time and at the same time enhance their experience of university.

Thirdly, the extended tram zone will better enable connectivity to the Melbourne biomedical precinct. As you know, Parkville campus sits within the Melbourne biomedical precinct, which brings together research, hospitals, teaching and biotechnology organisations. It also includes organisations like the Peter Doherty Institute for Infection and Immunity, which many of you will now be familiar with because of its recent work on COVID-19. The precinct employs around 49 000 people and will be growing down Elizabeth Street in the

next couple of years with the CSL move to the old Toyota site. So extending the free tram zone will unlock the area and facilitate freedom of movement within the city precinct for researchers and patients and students.

Our fourth point, in a similar vein, is around enabling better collaboration and innovation between researchers and students. Extending the free tram zone along Swanston Street will enable free travel between the University of Melbourne and RMIT, who both partner with the City of Melbourne in an area known as the Melbourne innovation district. The district will also include Melbourne Connect, which is currently under construction—you might be familiar with that on the corner of Swanston and Grattan streets—and will bring together high-calibre research, industry entrepreneurs and higher degree students in a purpose-built facility focused on innovation and collaboration.

Finally, I would like to highlight the importance of the free tram zone in facilitating a more welcoming environment to visitors to Melbourne and our international students, and that is probably more important now than before. An extended free tram zone would help make the city an easier place to navigate for both students and visitors, simplifying the ticket system, reducing confusion about using Melbourne's trams and supporting and contributing to the local economy. Thank you.

**The CHAIR:** Thank you, Alex. Is Professor Sarvi or Dr Sweatman making any contribution?

**Ms LAWLOR:** Yes, they are.

**The CHAIR:** Please.

**Prof. SARVI:** Yes, I will get going and then Peter will follow up on my explanation. So we are talking about this initiative at Melbourne University. It is called AIMES, which stands for Australian Integrated Multimodal Ecosystem. Basically this is an initiative that is trying to take advantage of this rapid transformation of mobility in cities and intelligent transport systems—basically trying to use technology to enhance safety and mobility of citizens as well as reducing crashes and fatalities and actually helping with movement of freight and stores and so forth.

This initiative has been established in Melbourne city since 2016. It is a world first and has attracted over 50 partners, large international companies and governments, including the Victorian government and local city councils such as Melbourne and City of Yarra. So in a nutshell this is a facility that is using Melbourne's road network and transport network and then they are fitted with smart sensors in order to develop new technologies and new products that go all around the world to assist in busting congestion, improving the public transport movement, improving freight movement, as well as reducing the crash and severity of the crashes that happen.

For example, we are working now on a technology that has never been developed anywhere around the world in order to save the lives of motorbike drivers. As we know, in the last year we had a significant number of motorcycle crashes in Victoria, which was very alarming for everybody. This technology allows us, for example, to help save lives. We did last year test some technology in Melbourne, actually close to Lygon Street, where a pedestrian is walking on the street distracted by his mobile—looking at it and ignoring that there is a red light and just walking through the street—being able to pick that person, understand that he is walking through the street and allow the cars around the intersection to understand that somebody is walking on the red.

This initiative it is about how to bring technology, entrepreneurship and investment from overseas and from the Victorian government all together and develop new solutions. This has been quite a very good success attracting investment to Victoria. However, because this is a very, very rapidly changing area of interest globally and also in Australia and other states as well as other countries are working on this, we would like to make sure Victoria stays ahead. I will pass it to my colleague Professor Sweatman to take you further.

**Dr SWEATMAN:** Thank you, Mr Chairman. Good morning to you and all the members of the committee. It is a pleasure to be here. My name is Peter Sweatman. I am an enterprise professor working with Majid Sarvi with the AIMES effort. I recently returned from the United States a few months ago, in March actually, and I am happy to be back. While I was in the US I was heavily involved in a thing called ITS—intelligent transportation systems. I worked at the University of Michigan heading up their research effort and set up various test beds for connected vehicles, and then we set up a fake city, we call it, for testing automated vehicles. Of course you will all be well aware of this wave of new technology that is going to come into our transportation systems.

While I was over there I was very involved in national—that is, US—ITS activities and, as I said, modelled deployments of these kinds of advanced technologies. Also we did a lot of strategic planning for agencies and jurisdictions who were trying to figure out how they should be preparing for implementing these very highly beneficial technologies. Majid mentioned some of the benefits, safety being first among equals, but traffic efficiency, energy and so on. It cuts across all of the usual silos. I am very pleased to be back here working in what is a very interesting test bed, the AIMES test bed here in Melbourne, because it is truly multimodal. Most of the efforts around the world have been focused on cars or they have been focused on platooning of freight trucks or, in some cases, they have been focused on public transport.

In AIMES we have the mix of all of those things. ITS technologies tend to be deployed in vehicles and they tend to be deployed in the infrastructure. Now we are seeing through efforts like AIMES the two are coming together through wireless communication. The number of possibilities once you have that wireless communication is almost unimaginable, so we are going to see this play out over a period of time. It does not happen for free; it does not happen for nothing. We need deployment of the sensors in the infrastructure and we need vehicles that can talk to the sensors in the infrastructure.

I would say that with the current juncture, with the COVID disruption, COVID has disrupted transport as much as any other field, we believe. That is something we are studying at the moment, and AIMES gives us an opportunity to observe, to put a microscope on, what is going on. But one thing that is happening not only here but all around Australia and around the world is great concern about the future of public transport and the crowding issues for future waves of a pandemic and so on. So how will that be dealt with? Already in AIMES we have done a couple of projects using the Melbourne tram system to understand how we can measure how many passengers are waiting at a stop, how many passengers could be allowed onto this tram that is arriving and, most importantly, giving passengers real-time reliable information about whether they should get on this tram or not. That is something that is really developing very quickly, and we are very excited about that.

Generally speaking ITS, intelligent transportation systems, is underutilised and underfunded. We commend it to you. It is part of the smart cities movement all around the world, where we have transport, energy, waste and so on all being made a lot smarter and much more affordable and efficient using connectivity. We have also seen examples around the world—we call it the great enrichment—where if you are able to bring a mix of people with certain different skills into the city and have them working together that is how innovation occurs. It has been studied pretty closely, and the benefits of that are 10, 20 times what you would see without that. So as part of that you need to attract a workforce—a smart, capable workforce. With the university we already have that. We have a really good start with that, but the satisfaction of employees, especially the sorts of employees who are going to drive the local economy and the state and national economy, is critical. And part of that is something like the free tram zone and making that available. I guess we would hope that we could get some data out of the free tram zone as well. Do not forget how important real-time data is and how we could all benefit from that if we were able to expand the tram zone and get more sensors deployed throughout that region. Mr Chairman, I will leave it there.

**The CHAIR:** Thank you very much, the three of you, for your contribution. I will put the question maybe to you, Dr Sweatman, but anybody else who is happy to answer—you spoke about the world and travelling and all of this. Do you think an extension to the free tram zone would be a benefit in marketing the university to international students?

**Dr SWEATMAN:** There is no question of that. As I tried to express, the sorts of smart people we want to come to Melbourne, the smart students we want to come to Melbourne, really react well to that kind of treatment, and especially if we are able to combine it with real-time information. So we have to do in a smart way, but absolutely it is very attractive.

**Mr QUILTY:** I noticed in your submission you did not touch on the increased crowding that would come from free transport. Presumably there are going to be more people catching the tram because it is free, which will impact also on people who are actually paying from the outer areas coming in. And you did not touch on the equity of providing free stuff to people living in the inner-city areas and making people from outside the city, or indeed outside of Melbourne, pay for everything. Could you comment on that?

**Prof. SARVI:** I can comment on this. Thank you very much; it is a good point. But if you look at the pattern of people movement around the city, those that are usually using trams are not coming from far away, because otherwise they would not take a tram. They would come in on trains or other things.

The other way of looking at this is that public transport is providing health and providing education. So it is a kind of investment that allows you to get people out of their cars and is saving massively in that sense compared to some costs that might be coming from subsidising public transport. Of course what you said is very valid. Some modelling by the government shows how much that is an impact, and then you can have some policy to add to it. But my understanding is that people using trams are not coming from far away suburbs, because they usually use trains or use buses. So I cannot for sure with certainty answer that question, but I do not think that is going to be a very, very massive factor. But certainly some modelling can address that.

**Dr SWEATMAN:** If I may add, I think the issue of crowding on public transport is going to change. That is one of the things in the aftermath of the virus disruption. We are going to see a lot more attention to that. ITS does provide many other ways of dealing with that, and we see that with signal priority for trams and smart ways of handling the load so that we manage the crowding. That is a critical issue. I think through the research we are doing in AIMES we have got some pretty good ideas how to handle that.

**Mr ERDOGAN:** I just have a short question. I am not sure whether you might know what percentage of your students actually live within the current free tram zone boundaries?

**Ms LAWLOR:** Within the current ones?

**Mr ERDOGAN:** Yes.

**Ms LAWLOR:** I can get that information for you. I do not have that to hand. We certainly know that the issue that we have for students living close—as in, within the CBD—to the university is that 50 per cent of our students are graduate students. There is already a concession fare for undergraduate students, but not for international students and not for graduate students—so regardless of whether you are a local student or an international student.

Many of the research institutes that we have been talking about and have a high profile in the media—and certainly Professor Sarvi and Professor Sweatman’s work—would be powered by these research higher degree students who are doing a lot of support work for their research, and they do not qualify for any of the subsidies. But I can find out what the numbers are within the existing free tram zone.

**The CHAIR:** That will be helpful. Thank you very much.

**Mr BARTON:** It is a city within the city. I know our committee members would all be aware of how large and important it is. My understanding is that education is the biggest exporter and driver for Victoria’s economy. I think that is correct—

**Ms LAWLOR:** Yes.

**Mr BARTON:** One of the things that people argue about is this cost benefit. Do we know what sort of money or would you know how much funds foreign students are actually bringing into the economy here in Victoria?

**Ms LAWLOR:** I think DJPR does have a lot of those figures. I personally do not know, but we can also find that information in terms of international students’ contribution to the economy, both directly and indirectly.

**Mr BARTON:** It would be helpful if we knew what their contribution is, because I think they pay their way. Would there be benefits from increased collaboration between the University of Melbourne and RMIT in Parkville with the free tram zone? Would it become easier to work together? Are there further opportunities that could be taken?

**Ms LAWLOR:** Well, certainly we are testing the waters, so to speak, with RMIT and the Melbourne Innovation Districts, which is a partnership between the two institutions and the City of Melbourne. Traditionally RMIT and Melbourne Uni have not had a very close research relationship, but I think, particularly

with the thinking around Melbourne Connect and with the Melbourne Innovation Districts, that relationship is getting a lot closer because the courses are kind of complementary rather than in competition per se.

**Mrs McARTHUR:** Certainly we have all learned today that we need a lot more data so that we can make intelligent decisions about who is using what at what cost. But I am interested in this notion that to bring all these experts to the city to further your research and so on they are going to be attracted by free inner-city transport. Really, I cannot believe that a free tram fare is going to be the deciding factor as to whether some important researchers come to your university.

I am also interested to know whether you think free transport for students should be extended everywhere in this state. Why should Melbourne University or RMIT be any more special than Deakin University in Warrnambool or Geelong or Ballarat Federation University or whatever? Why do we have to have special attention for Melbourne University in particular? And where else in the world would be providing free transport in this sort of situation? Do students in every other city of the world or any other city of the world all get free transport, or their researchers? I must say: I agree with Mr Quilty that if you increase free you may stop people walking, which would be far more healthy, or using a bicycle. I know my children, when they went to Melbourne University, never had a car and used a bicycle or walked. Surely that is a healthy way to get about. But if you can elaborate on why Melbourne University as compared to anywhere else—or do you think the rest of the taxpayers should pay for everybody to have free transport?

**Dr SWEATMAN:** We do not want the state to go broke.

**Mrs McARTHUR:** Excellent!

**Dr SWEATMAN:** But I think the important thing would be not just free but smart. I think the two have to go together. The thing that is going to help us attract really good students and really good graduates here as well—and Majid has already got several of them from all around the world—is a smart city. So that is part of being a smart city. We can be smart with the free side of it as well. In the United States recently the term ‘quid pro quo’ became well known by everybody, so a quid pro quo here would be that some data is extracted from the users of the free transport system—so that they opt into something, some use of sensors, so we get data about transport movement so that the learnings can be applied elsewhere. So I think the smart side of it is really important, and I think the free side of it helps make that attractive—and we can leverage it if we have it.

**Ms LAWLOR:** I think more broadly anything that makes Victoria in particular more attractive to students, regardless of whether they are international or from interstate, is a good thing given the focus of our service economy towards education and the ability of the institutions that you have mentioned to deliver quality education. Why Melbourne? Well, why have a free tram zone at all? I mean—

**Mrs McARTHUR:** A very good point, absolutely.

**Ms LAWLOR:** But we do have one, and our argument is that if we do have one, then it makes sense to actually extend it to one of the largest institutions in the city of Melbourne as well as, on the Royal Parade side, an incredible biomedical precinct, which would benefit both our staff and students as well as patients.

**Mrs McARTHUR:** Maybe we should be encouraging them to go to Monash or La Trobe or Deakin or somewhere else and spread the load and spread the investment and spread the interest, let alone come out to my area, which is out in the country. We want to stop a build-up of congestion in Melbourne and move all you people out to the country. Why isn't Melbourne University setting up a massive campus out in a rural area? That would be very productive.

**Ms LAWLOR:** Well, we should take you to Dookie.

**Mrs McARTHUR:** I have been to Dookie.

**Ms LAWLOR:** Yes, which is a university.

**Mrs McARTHUR:** We have got the wonderful Marcus Oldham in Geelong as well.

**Ms LAWLOR:** Yes, so we have got campuses in regional areas as well.

**Mrs McARTHUR:** There is not even public transport there to help out, let alone free.

**Prof. SARVI:** I think there are two things we need to pay attention to. Public transport best works in a congested area, so you cannot have good public transport in a regional area. You can talk about this today, but there are books written about this, there are papers published about this; it is scientifically proven. I am not arguing about the regional area. A second thing, there are many, many examples of free transport around the world. Portland, USA, is a big example of that, one of the best cities in North America. There are examples in Asia; Hong Kong is another one. So I mean, I can go and figure it out for you, but I am sure there are plenty of examples of free public transport, especially in dense areas, to encourage people using public transport, not using cars. I can understand the argument. Of course if you provide everything for free, there is going to be a cost. But as I mentioned before, this is going to be a very small amount because, as Alex mentioned, you already have a free tram zone, it is just about a new stop that would make it even more appealing.

**Mr GEPP:** Thank you. I am interested to learn, Mrs McArthur, that you have broken away from your party's policy on the free tram zone. It was the Liberal Party who first mooted the idea here.

**Mrs McARTHUR:** You can imagine, Mr Gepp, I am not a fan of free anywhere.

**Mr GEPP:** Well, clearly not, but I make the point that it was Premier Napthine of the day who did propose it. I am particularly interested in the new technology research that the university is doing. It sounds like fascinating work that you are doing, and it is perhaps for another day. I suspect that we could easily take up a couple of days talking to Professor Sarvi and Dr Sweatman about the fantastic work that they are doing. My question is in relation to the impact as this precinct is growing. We can argue about whether or not is being placed in the right place, and I can say very proudly that in my electorate of Northern Victoria the University of Melbourne does have a very significant presence in Dookie. We are very proud that you are there and making a contribution to the local economy and providing that service to all of northern Victoria.

My question is in relation to the impact of not extending this free tram zone to the students, particularly the international students. If you can just go into a little bit more detail about what you hear from your student body in relation to this, the impact. We all know that if you walk somewhere, you are more healthy and all the rest of it. But life is not always like that if people are scurrying between two different campuses. Is the cost of jumping on a tram to make a lecture in time preventing some of the educational experiences of our students, both domestic and international?

**Ms LAWLOR:** Well, we know that students—particularly international students, but local students as well—will avoid catching the tram because of that extra cost. You will see them in the mornings—well, not at the moment, but in a pre-COVID world you would see them walking up Swanston Street to avoid that additional cost of the tram because their rents are very high, they are usually studying, holding down jobs, they are trying to make ends meet and, 'Do I pay that extra?'. Well, if I am a graduate student, I am not going to get a concession fare, so do I pay that extra five bucks for 2 hours that I am not going to use or do I walk up the street? And maybe I will be late, so maybe I will just hang round in the city because my shift starts whenever. I think someone mentioned, 'Is it the be-all and end-all?'. Well, of course it is not, but it is just one other extra barrier that makes a hard situation harder. And so—

**Mr GEPP:** Sorry to jump in, Alex. Is it your experience that the work that the students are doing, so their casual jobs—are most of those students working in the CBD in hospitality, retail, those sorts of jobs, or are they outside, spread out in the burbs?

**Ms LAWLOR:** Both. It is both, but we certainly know that particularly during this COVID situation—and I volunteered to do it as well—through SecondBite. Sorry, am I allowed to say that, to advertise something? But through SecondBite, which is a charity that repurposes food we do a food drop four days a week for students that cannot afford to feed themselves once they have paid for accommodation—or they might have prepaid accommodation if they are through one of the student accommodation providers—because those casual jobs have gone. They are not the only ones obviously in the community, but it is particularly international students who do not qualify for any of the commonwealth government support packages. It is really tough.

**Prof. SARVI:** Alex, can I also suggest that if you look at that area that you are talking about, it has the highest walking and cycling in Melbourne. They also have the highest vulnerable road user accidents compared to other parts of Melbourne. If you look at it, it is 40 per cent higher, off the top of my head. What it means is

you have an awfully congested road network—people cycling, walking and all new kinds of mobility, e-scootering—and also at the same time you have lots of delivery trucks, city logistics moving around. So taking people to the public transport is safer than letting them walk and cycle, because unfortunately when people cycle they are going to mingle with other vehicles on the road, and they have narrow roads, competition for space. Again, there is so much evidence that public transport is the safest mode of transport, and that allows you to get, hopefully, a bit of benefit in that sense as well. So it is a very positive thing to extend that free tram zone to those kinds of areas where most of our students are also cycling and walking.

**The CHAIR:** Are there any further questions? If not, just quickly, Alex, you mentioned students. My question is about the cost-of-living pressure on students. Have they spoken to you about how the free tram travel zone would help them?

**Ms LAWLOR:** We have never put a specific question. The data we are using is we have an annual student survey to both domestic students and international students. The issue of a free tram zone has never been put to them per se, but certainly cost-of-living pressures are a higher proportion of stress in terms of our longitudinal data with the current student body, yes.

**The CHAIR:** If there are no further questions, on behalf of the committee, I would like to thank you, Alex, Professor Sarvi and Dr Sweatman, for your time and your contribution. Thank you very much.

**Prof. SARVI:** Thank you. Have a good day.

**Witnesses withdrew.**