

- Good evening, everyone, and welcome. I'm Eddie Tuiavii, and I will be facilitating the conversation this evening as your MC, otherwise known as the Master of Chaos.

Auckland Conversations provides an opportunity to inspire and stimulate your thinking about the challenges facing Auckland City. Tonight we welcome Jarrett Walker, International Consultant and Public Transit Network Design and Policy, along with our panellists, to discuss transport planning as freedom planning. Thank you for joining us tonight, this is a fantastic turnout. We also welcome those joining us online who are watching on the Auckland Conversations website. A shout out to you. Was I looking at the right one? Thank you.

First, couple of housekeeping rules this evening. In the unlikely event of an emergency, an alarm will sound, and we'll be directed out of the building by our ushers. Don't follow me. I'll be finishing off the food before I exit. Bathrooms are located outside the room, opposite the ballroom entrance. Finally, please, this is a public service announcement: switch your phones to silent.

We'd like to thank Auckland Transport who we have partnered with for this event, and particularly to MRCagney for their support of this Auckland Conversation, and who are celebrating 15 years in Aotearoa. Our thanks to our Auckland partner, the Southbase Construction, our design partner, Raz-in, and all our programme sponsors.

Whitney Houston was quite well known for singing the song, I believe the children are our future, teach them well and let them lead the way. I was going to sing it, but I've been advised that auto-tune would interfere with our streaming capability so I'm not going to sing it. But it is important to gauge the views and the opinions, the beliefs, the feedback that our young people, the future emerging leaders of our great wonderful city have. And so this evening, I'd like to invite to the stage two remarkable young men who are going to be sharing their thoughts and their views and their experiences. Ladies and gentlemen, please welcome Milan and Kees Stafford to the stage.

MihiMihi

So what my brother's just said is where we're from, and what I've just said is to welcome you guys. So thank you.

So to illicit some responses or some sharing this evening, I've got some user-friendly questions for you young lads this evening. Do you catch the bus? Move forward, move forward and smile straight down there. Do you catch the bus? - Yeah. - You both do, okay? So the first question that I have, the second I have for you is, what do you see the future of transport in Auckland as being? And don't worry, it seems like a curveball question, they're totally prepared.

- So the future of transport in Auckland. - So the future of Auckland transport... Okay, um... Buses running on electricity and trains running on electricity?
- - Wow, there we go.
- What do you like about catching the bus?
- So that our parents can, don't have to worry about us getting to school safely, and not having to come pick us up at like three o'clock in the afternoon. - Yeah, that's it.
- Finally, what changes would you like to see to public transport? We had a short chat about this earlier. Any changes you'd like to see?
- Electricity. - Electricity. - Running-- - Electricity for the win. - Electricity running through buses and trains, and a lot more trains and buses going throughout Te Atatu Peninsula.

And in case you couldn't figure that out, Auckland Transport, there was a plug for West Auckland. Ladies and gentlemen, Milan and Kees. Thank you very much.

The format for tonight will be a keynote speech from Jarrett Walker, followed by a discussion with our panellists. We will then open up the discussion to questions from the floor. We will be using Slido, which is an interactive Q&A tool for audience questions. If you don't know what that is, neither do I, it's on the script. If you have a smartphone, we encourage you to visit [slido.com](https://www.slido.com), enter the event code #freedom, and ask your question. We will get through as many as we can, and you can submit your question any time throughout this evening. Alternatively, feel free to raise your hand old school during the interactive Q&A to ask a question. You're also welcome to Tweet during the event using the hashtag Auckland Conversations.

We always try to ensure the Auckland Conversation events are inclusive and accessible. On-Demand viewing of the event, a full transcript and captioning of the event and presentations will be available on the Auckland Conversations website in the coming days. Now ladies and gentlemen, onto tonight's conversation.

The challenge of public transit today is not just having good ideas, but being able to explain them. It's crucial to integrate the task of planning, along with the tasks of explanation and of creating leading innovative processes that engage and empower our public. The goal is managing behaviour change in a positive way, changing the way people travel, and the positive outcomes that it can produce for Auckland.

Tonight we aim to start a conversation about how transit works, what choices it presents, and how we can use it to create a better Auckland with some real-life examples of changes that, you know, they're about to reshape the way that we use the CBD and beyond.

Before we welcome our illustrious, wonderful keynote that I had the pleasure and honour of meeting earlier today, we have a short video to get you thinking about what's going to happen in the streets around us, as Auckland City Centre is hugely transformed. We're going to show you a short video which sets the scene for the changes you will be seeing in the coming years. May I direct your attention to the screens?

- [Narrator] Auckland City Centre is the beating heart of the region's economy and is growing at a rapid pace. In the coming years, it will develop into a more vibrant and better connected place for people to live, work and play. The Wynyard Quarter community is thriving as the area develops. This will continue as it excited new public spaces, commercial properties and homes are completed. Improvements along the waterfront are picking up pace as we head towards the 36th America's Cup in 2021. And the new infrastructure being built will be used well into the future. Quay Street will evolve into a beautiful waterfront boulevard with more space for people and events, and with better public transport access. The redeveloped ferry basin will allow for higher numbers of commuters and visitors. The city rail link will open up Britomart Station so more trains can get in and out, and Aucklanders can travel around the region more efficiently. When Aotea Station opens, the surrounding area will transform, with the revitalization of Albert, Victoria and Wellesley streets. Federal Street and High Street will also be improved to form pedestrian-friendly links through the central city. The community is changing in response to resident and student growth, and private developments including apartments, university buildings, and the NZICC will also benefit this growing population. When the CR rail arrives uptown, street upgrades will be enabled. And Karangahape Road's enhancement will provide cycle-friendly access through this unique neighbourhood. The transformation beginning now will provide an exciting city for future generations. We are creating a place to be proud of, one that puts people first, and one that is distinctly Tamaki Makaurau.

Ladies and gentlemen, welcome to the future. That was by design. I am now pleased to introduce Jarrett Walker to the stage to deliver our keynote for this evening.

Jarrett is an international consultant- That was also by design. Is an international consultant and public transit network design and policy, he's been a full-time consultant since 1991, and has led numerous major planning projects in North America, Aussie, and New Zealand. He is president at Jarrett Walker and Associates, based in Portland, Oregon, and principle consultant with MRCagney in Australia. He is the author of the popular public transit blog, humantransit.org, and the book *Human Transit: How Clearer Thinking about Public Transit Can Enrich Our Communities and Our Lives*. This book is a friendly, non-technical introduction to transit's underlying geometry and the real value judgments that must be explored to make both transit and development policy. His background integrates in arts and humanities PhD, with long technical experience in all aspects of transit and its role in city building. He is a frequent keynote speaker, teacher and facilitator of decision-making processes. Please welcome Jarrett to the stage.

Thank you, very much, Eddie. I'm delighted to be back in Auckland in this marvellous city that is changing, but changing in ways that make it still recognisably a New Zealand city and not just any other world city. And I'm excited to have been a part of that in the role I played back in 2012 in laying out the framework of your new bus network that has now come on and is starting to happen.

Eddie mentioned my book, the book is for sale out there in the lobby. Feel free to help yourself. Transport planning as freedom planning. What do I mean by freedom? Well, I believe that whatever freedom is, we're going to encounter it by first facing reality.

So, let's talk about reality for a second. How many adult elephants would fit in a wine glass? Notice the sensation of the kind of certainty that you feel, when I ask that question. That sensation is called axiomatic or geometric certainty. You are really sure about how many elephants will fit in a wine glass. So sure, that I bet you don't even need data. I bet you don't actually need to take some wine glasses to the zoo and do this experiment to know the answer to this question.

So now, let's talk about the future the exciting future that we're all supposed to imagine. In 2050, how many adult elephants will fit in a wine glass? I bet you know the answer to that too, don't you? That's because to know that, you know something geometrically is to know that it will be true in the future. In other words, there is a kind of knowledge that we can use to make predictions. And who doesn't want predictions?

People are calling me up, journalists are calling me up all the time, asking me to tell them what the future will be like. What the smart city will be like, what our cities will be like in 2030, and I don't know a lot about elements of that answer, but I figured out over time that I know more than you might think, simply by the fact that I know about elephants and wine glasses. And a lot of the problems that we face in our city are problems of that kind. Specifically they're problems about space. What is a city? A city is a place where people live close together, which means it is a place without, which means a city is a place without much space per person, which means a city is a place where space has to be shared. That's what a city is. And the problem of sharing space is just the foundation of what we have to do together to make a city. And the way we share space determines whether we are making a city that is inclusive or a city that is only for certain people.

So, you've all seen these images of an organisation called We Ride Australia staged these images, about how much space 60 people take if they're on a bus. In the context of an urban street and how much space is leftover for all kinds of other things if they do that. Here's how much space they take if they're all on bicycles or scooters. Human body sized vehicles essentially, that enable us to travel faster than walking without taking much more space than we do otherwise. And then, of course, there's the image of how much space those same people take if they're in private cars and how little room there is for anything else.

Now of course, it's time to talk about the exciting new technologies that are coming to transform our cities. So here's what it will look like when everyone is in Uber and then once we have driverless cars, it'll look like this. But that will actually be even worse. Because of a phenomenon that the economists call induced demand which is a great way to make yourself sound smart, if you know the term induced demand.

But it's really something I need everybody to understand and it's better to understand that we're talking about biology. If you make a desirable thing easier to do, people will do it more. In other words, if you remove hassles and difficulties associated with driving, people will drive more. This is not economics, this is biology. In fact, it's very close to axiomatic biology if you think about what an organism is, any living thing has to get some sort of resource out of its environment and it has to spend less effort getting that resource than it gets back in energy from that resource. That's the basic math of how you keep living, right? And that's all induced demand is. It's the observation that an organism will tend to do things the easy way and so if something becomes easier if for example, using your personal car becomes easier because we remove the hassle and danger of driving, people will do it more.

We already have an induced demand effect happening just with Uber, because of course, that too, has removed the hassle factor of driving and in large cities, that have really been taken over by Uber and in the context of failing to invest in public transport. We're seeing explosive growths in intercity traffic congestion that's really strangling everybody's opportunity to go anywhere and do things. So only two things ultimately fit in limited space. One is for us to share the ride in large vehicles. The other is for us to use small vehicles that are about the size of our bodies. Nothing else scales to the dense city that you ultimately want to be.

So, now, let me ask you a completely different question. Do human beings value freedom or opportunity? When I gave this talk in Australia, someone came up to me afterward and said "You really shouldn't use the word freedom in Australia, it sounds American." And that's fine, so I'm going to invite you to think for yourself about what word you want, but what I'm talking about is the sense that when you go out the door in the morning, there are choices before you.

There are different things you can do, and even if there are rituals and responsibilities in your day, you get to make lots of choices. And that in the bigger period, there are choices in how you will live your life. Choices in what job you will compete for, what school you will go to. Who you want to meet, where you want to hang out, what you want to do and that those choices exist for you. That's what I mean by freedom and what I mean particularly by the physical dimension of freedom. All those things that you can't really do on the internet.

And if you believe that human beings value freedom and opportunity, I'll ask you in 2050, will human beings value freedom and opportunity? And now what I'm inviting you to notice is that again, this sounds like psychology. This sounds like culture, but it's not. It's basic biology. Because a successful animal of any kind, needs to move. Needs to be able to move out into its

world. Needs to be able to pursue desired things, avoid dangers, needs to be able to move fundamentally.

And that's all we're talking about when I talk about physical freedom. By physical freedom, I mean all of the mean your ability to go out into the world and do things and choose among things and we can visualise this, by drawing a map around the wall of the wall around your life. So, this is a visualisation, my firm did, we're doing a redesign of the bus network in Dublin, Ireland right now. A similar project to what we did in Auckland. And we now draw these images.

For a hypothetical woman named Jane, who happens to be located near the Dublin City University, this blob shows where she could be in 45 minutes on public transport, plus walking. My engineers friends might call this a transit shed or an Isocrown, I prefer to call it a map of the wall around her life. Because if she can't get there in 45 minutes it's not a thing she can make a daily part of her life. Outside of this wall, are jobs she can't hold, schools she can't go to, clubs and organisations she can't belong to, people she will never meet, quite possibly a person she will never marry. Because again, there's only so much of this you can do on the internet. And, because that just wasn't available. It was outside of the wall.

So I want you to be aware, that in our daily lives, we have this wall around us. And that wall is, essentially, the limits of how far we could get to in the amount of time we have to do something. So it's about 45 minutes, if you're talking about a daily activity like work or school. It's further out if you're talking about a weekly activity, but it's closer in if you're talking about something you have to do quickly, like go to lunch or errands. But that wall is there. And so what did we do with our network plan? We proposed to change that to this. And we can talk about exactly how it changed. That Jane, under the new network, can get to 43% more jobs. You can also turn this around, 68% more people can get to her, if she's a destination. Like, the university. I'm not talking about transport anymore. I'm talking about the quality of people's lives and particularly, I'm talking about people's ability to choose things in their lives and therefore have better lives, because they have more choices.

So, freedom is a thing every organism needs. It's a geometric thing that we can predict. This is very important, this brings us back to elephants and wine glasses. I am absolutely sure of that calculation. It's not a calculation that's about Jane's psychology. It's not a prediction of what she will do. So much of what we do, in transport, is talk about the psychological or cultural and behavioural aspects of transport, we try to predict what people will do. And I propose something else. Which is that independent of our predictions of what people will do, it's a good thing that people can do things. And that's what freedom is measuring. It's measuring that you had choices which is a good thing, regardless of what you chose.

Now, this is taking us a little bit away from what we often have in this part of the world, which is a tendency to think about transport in business metaphors and from a business perspective, of course, the idea of the customer having choices is not useful at all. What you want is to predict what the customer will do, influence what the customer will do. And so this requires thinking

about freedom this way, caring about freedom this way. Requires that we step back from that and say "Wait a minute, no".

As citizens, as humans, as people in the city, we are entitled to a degree of autonomy. We are entitled to choose when we will be customers. We are entitled to make choices and the city ought to care that we have choices. Not just that we choose something." Freedom, I contend, is also inside of a lot of other things we care about. And that people tend to talk about in different languages as though they don't agree with each other deep down.

So, think about long-term real estate value. The current believe is that if you want long-term real estate value from public transport, you have to have tram tracks in the street outside of the building. And that it doesn't maybe matter all that much, where the tram goes, the important thing is that there are tram tracks and there's a tram going by and therefore you can take photographs of the tram going by the building. Now, there are lots of good reasons to build trams if you're trying to maximise freedom, but this is something different because once you decide that the important thing about your development is having tram tracks outside, then you're likely to build a useless tram because the usefulness of the tram wasn't that important. The important thing was to have a tram. And I've been in plenty of those conversations, watched those things happen. We have a fairly useless tram in my home city of Portland, tourists love it. It's great, it's nice, it's not a thing you use if you're going anywhere with any kind of time value. We have the joke that it's easy to photograph the tram in front of the building you're trying to sell, because it usually isn't moving. But what if long-term real estate value really lay in, if you are here, what could you do? What if it were not just about, is there a symbol of public transport, like tram tracks in the street, what if it were about the sum total of where you could go if you were at this location. I suspect in the long term, it is. Because the long-term people figure this out and that in the long term, you're going to see real estate value increasingly converge around actual places where you can go lots of places on public transport. Even if there aren't actually rails there.

General prosperity, social inclusion. Much of what we talk about on the social side of transport is, in fact, isolation, trappedness, the need to move out in to the world so that you have choices. Now, I know the way I know about elephants and wine glasses that the way to do this with public transport is fixed route networks. And that the key thing about fixed route networks is that you have to use whatever technology is right in each situation but then make them all work together to create grids or other kinds of network structures that work well.

The key thing about fixed route networks is that they use scarce space efficiently because they're an efficient way to get people onto big vehicles. The rigidity of the line is what gives you flexibility. This is very important. A lot of my millennial tech friends are out there saying that the only reason we have rigid fixed routes, rigid bus routes is that old fogies like me just have rigid minds and that now, these kids have come along and have liberated us from old fogies like me and now everything will be flexible. And now you'll just call up and a vehicle will come to you whenever you need it. It is actually the rigidity of the fixed route that makes your life so liberated.

It is your certainty that that vehicle is coming at that point, at that time, when you need it regardless of whether you called it, regardless of who else called it, regardless of whatever else may be happening, that makes public transport so liberating. If you've lived in a city with a big metro system, you know what I mean. It is precisely that the station is where it was yesterday that makes you so confident in moving out into the world. Nothing that can possibly happen, demand responsibly, is ever going to come close to the efficiency of great fixed route services, bus and rail that are designed to succeed. They are at completely different orders of magnitude. And as a result, public transport, the fixed route can scale in a way that little vans are not going to scale at least not prior to automation because as long as we have a driver in every van, that's an enormous cost. That is never really going to make sense and even once we have automation, supposing that we do, we will still have the problem of space.

It will still be the case that the big vehicle uses space efficiently and the little vehicle does not. What's the core then of how we create these networks? So, what do I do when I'm trying to create freedom? Well, before I got to the point of visualising freedom, long long ago, I coined the slogan, frequency is freedom. Because of all the elements of public transport, frequency is the single most important one for expanding that blob of freedom. Moving that wall of your life outward so that you can do more things. And it's also one that I constantly have to explain because if you are a motorist, and most decision makers in our cities are themselves, motorists, you don't have a concept of frequency. You have a concept of speed. You have a concept of nice vehicles. You may have a concept of reliability. And so when you come to public transport, you'll want to talk about those things, but you don't have a concept of frequency because that experience of you can not go until a vehicle comes, is not really your experience as a motorist. So I have to pound away at it. I have to emphasise that frequency is a cubed value it does three different cool things. Less waiting, easier connections, which is what combines routes together into a network, and a backstop for reliability, and it's because of that that we get this non-linear payoff by actually investing in it. It's really expensive, but it's really worth the investment. And we see that all over the world.

So, hey Auckland, that's what your bus network used to look like. Red, on all of the maps I draw, is high frequency service. Turn up and go every 15 minutes or better all day. And that's what it used to look like. And that is more or less, what it looks like now. Before, after. Before, after. Remarkably little money had to be put into it in order. It was not really that much of an expansion of the service. It was just a reallocation and reorganisation of one of the most inefficient public transport networks I had ever seen and I had seen a lot of them. It's working, patronage is going somewhere around six, seven, 8%, year over year in all the different sub areas.

This is a spectacular success story. And remember too, the measure of a fixed route network is not how many people ride in the first couple of years. This is a great start. What really starts to happen, is that the frequent network needs to go out there and be an idea in the city that helps people organise their decisions about where to locate and how to arrange their lives. So, because frequency is invisible, because you can't take a picture of it, one of the strongest

responsibilities of Auckland Transport of anyone making decisions or thinking about public transport is to draw a map of this frequent network make it really visible. Help people talk about it.

You want to pick up real estate ads and see apartment listings saying on frequent bus so that people, that's how you know that people who value public transport are locating themselves where it will work for them. The public transport line comes to be lined by people who appreciate it. What could be better? That's actually how we get there. And so we have a lot of great examples of that, of cities that have gone along the way with that. Toronto, Minneapolis, Brisbane is the only one off. Vancouver actually built a regional goal around the percentage of population on the frequent network. They've already achieved that.

Remember that frequent buses are a key to affordability. I'm not expressing an opinion about your light rail projects here. But, rail is always going to drive up housing prices rather steeply, because it's always going to be scarce. Buses services can go so many places so quickly, if you design for them that they can't possibly drive up real estate prices as high everywhere and as a result, the best way to maximise affordability and freedom is usually to locate on frequent bus route. Not necessarily on a rail station because you're likely to be able to afford life on a frequent bus route. So that's why the nexus with development is so important.

Here is a street near my house that is a frequent bus route. It does not have a tram, it's not going to have a tram. It has a good frequent bus service and that's what we've done with it. One of the key ways we did this, very nearly zero requirements for off street parking. We want units to be affordable. We're having a crisis of affordability and so we're doing everything we can to make things cheap. And the key thing to make things cheap is to help people not have to own cars and to make it cheaper for them to live without cars. And so, getting rid of on-street parking has been crucial to being able to deliver this kind of density.

So, this is my last slide and I wanted to just come back and bring it back to the big picture for a second. Once I started looking at this diagram. Once I started looking at this image for the first time, the wall around my life and what I could do to expand it so that I would be freer, I realised that this is really the frame in which you have to analyse every other opinion about public transport that you're going to hear. Because when someone says that something else is important about public transport, they are saying that this is less important.

They are saying that you should be able to go fewer places so that we can have this other thing that I want. And that's the context of all of those claims. So for example, if someone says buses aren't important. You can tell this tool, I would never ride a bus and it will show you a vastly reduced freedom. The wall around your life will move inward, right? And you'll have less places you can go. You can say, "I won't walk, I won't interchange. I'm used to the buses as they are. Leave them as they are." All of those things will bring the freedom inward, give you less choices and options in your life. And so I ask you. I'm not telling you, but I'm asking you how important is each of those opinions to you, compared to the desire to have a city in which people feel that

they can go out into their city, make their own choices, find their own happiness, find their own prosperity by having as many options as possible. That's my question. Thanks very much. -

Thank you very much Jarrett. Tonnes there in terms of food for thought so, hold those thought patterns.

At this time, ladies and gentlemen I'd like to introduce the panellists for this evening and as I introduce you, please make your way up to the stage. Jessica Rose from the Albert Eden local board. She's a board member and representative for Women and Urbanism, Auckland. Daniel Newcombe, manager, strategic projects, Central, North and West Auckland Transport. Pitty I didn't bring my drum, because I need a drum roll for this next gentleman. Ludo Campbell-Reid, design champion and general manager Auckland design office, Auckland Council. I'm seeing some fantastic questions coming through on Slido so please keep those coming.

Jessica, do you think women use public transport differently to men? If so, in what way could this impact transport planning as freedom planning?

Eddie, I'm so glad you asked me that question. I guess though, while I've been sitting down watching this, is I kind of wondered if it, could it be posed to any of the other panellists. I know the answer, but does everybody else? Yes, women do use public transport differently. And they use it for a multiple of reasons. Some of it can be because women are more likely to feel harassed on public transport. I guess, when we think about freedom, it can sometimes be, freedom to do things, but it can be freedom from things as well. Also, women are more likely to take multiple stops, when making a public transport movement and I noticed when you said Jane earlier, Jarrett, who clearly wants to get married. But, Jane, 45 minutes, is that 45 minutes point to point or that if she wants to go from work to her home and then to the club and does she want to stop at the pharmacy to pick something up on the way? So, and women are more likely to be caregivers also. So they will often maybe have to drop kids off at school on their way to work or go and pick up groceries during the day. And women are more likely to outlive men. Which is another societal concern on its own, but it means we've got a lot of women who may be at a point in their lives where public transport is their only way of moving around. And it may be difficult for them to access. So yes women potentially do use transport differently than men and it does affect the freedom.

Daniel, which transport projects are going to have the greatest effect on the city in the future? - On behalf of Auckland Transport, I should probably say our projects, well, I should say the light route and the city route link projects in particular are going to move a lot more people and it's not just because they're rail projects. But, I was actually thinking, on the way here, and we were talking about this before, I think things like Lime scooters are going to have the biggest impact going forward. Lime scooters and not them in particular, but micro transit little things that we haven't thought of yet that are coming, aren't well predicted in our models, in our thinking, in our planning. My strict observational data from looking out the window and watching people use them, is that a lot of the trips being made are induced trips. I know Jarrett said induced trips can be a bad thing, that's true with putting in a road and having cars on it. But, I'm seeing a lot of the

Lime scooter trips as being induced travel, that trips that people wouldn't have otherwise made, because they're smaller shorter trips and they would've said, "I don't have a bike with me, there's no bike parking, I don't have a helmet." And all of the sudden, they've got the freedom to go and do that. So I see them as a fantastic new trend that will be filling the first leg, last leg of a public transport trip or expanding the walkability of a part of the city. And it's a new kind of concept of a shared transit space efficient thing. I totally agree with Jarrett that it's about technology will save us, but not through automated cars, it'll be through little micro transit things that we haven't even thought of yet. Hover boards and stuff like that. Which will provide choices that we don't even know that we need at this point. So it makes it very hard for someone like me to try to plan the network, so I think we might just focus on the big tubes to move big, lots of people and let some of the market to provide the micro transit innovations which are seeming to unlock cities in particular with space efficient transport options.

Thank you. Ludo, as Auckland's design champion, what has Auckland done to integrate its new public transport network with people's onward journeys by foot and cycle. I.e. what are the good examples? And where might we want to focus our attention next?

Can I just be cheeky and just mention something about what Jessica was talking about earlier? I think the whole concept of, when I think cities would be far more livable if more women ran cities. There needs to be diversity at the decision-making tables. There needs to be decision making diversity in all the aspects of what we're doing here and I can't think about it, what it's like to be a woman, because I am not. And I don't, so the point is, you need more women making decisions on these things that matter and more diversity therefore so when you think about engineering, we need more women engineers. We don't need more men engineers, because they're thinking about themselves. So, I think there's a bigger bigger concept here about diversity of thinking so I think the question is really good, but I think it's really difficult. It's like asking me, what's it like to be disabled. I get asked, "Well, do you understand?" Well, no I don't because I am not. And so you need people on your teams who do understand that so it's perhaps a cheeky way to encourage that conversation a bit further and a really important one. So, in terms of your question, I was thinking about this, there's a couple of key things, bearing in mind what Jarrett's been talking about and key things around P.T. You've got to design the infrastructure first, ya know, London built its underground system when it had a population of one million. Think about London today without the underground system. So the forefathers of London decided, and mothers, decided to build the metro then and they thought about the future so you've got to get it first. You've got to locate it correctly. I was thinking about isolation or PTI isolation. Think about Palmerston North. I've been there a few times and they used to have railway line right in downtown middle of Palmy. They then moved it out to the outskirts of town so it becomes really difficult to get to. So these are the challenges of how you deliver PT and at some point in every single journey, you are a pedestrian and I think the whole design of our PT networks or transport planning needs to put people at the centre. We should be psychologists not planners.

So I think Britomart's brilliant, ya know it's fantastic, it's got a great street network. It's well integrated. I think New Lynn is a great example of a fantastic new PT node with a really good pedestrian environment. Newmarket could be, but it isn't. I think that could be done a lot better. And I was thinking about Albany, I mean, if you could try to catch a bus in Albany it's really

difficult. So there's a bunch of areas where we need to change the way we do our street design. And I think that's the key for me. So, you know, challenges going forward I think Southern growth areas are a real challenge. How do we design a more workable street network before we design the houses and before we design the employment. It's about getting the grain right, so sorry for the long answer, but it's lot to talk about.

Jarrett, have any thoughts to share on the three questions just asked or would you like to move on?

Well, let me see what else you have. - How do we get more buy in and more support for public and active transit from the private sector? Especially employers for employees.

Well, California's very good at this. If you have more than 200 employees, your employee's transportation is your problem. And so, the way we interact with the private sector is really critical because the private sector through its location choices and its development choices. Yes, they bring jobs, that's great. They give us things we want. They also create transport demand. And they can create it well or badly. And they can create problems for us or they can create solutions for us. It is frequently the case that if an employer's goal is to get the cheapest possible land, the place to put that is way way out beyond Albany somewhere, right? And then that's going to be a call-center and like 300 low-income people are going to have to find their way out there every morning and that's going to be a problem.

So that's a case where the profit of the company has been essentially dumped on to a problem for their own employees. So, I think the key here is to put forward the idea that an employees commute reality was created by the employer. And that the employer has a responsibility to be part of solving that reality or maybe even making choices that don't even create it.

Some of these questions have common denominators or themes, so I'm going to ask you two at once and any other panellists feel free to address this. So, the first one is, how do you define frequency, what is the threshold? The second one is, how do we address streets that have become severed by a wall of buses? What is the optimal number before we reach over capacity particularly in the city centre?

Those sound like they're directed at me. The optimal level of frequency is the experience of turn up and go. The experience that you wait a reasonable and short amount of time and a bus comes along. That actually varies depending on how far you are going. So you'll wait two hours for a flight to Sydney, but you'll wait a day for a flight to London. Our sense of how long we're willing to wait is related to how far we're willing to go. Having said that, there's another interesting thing that comes back to Daniel's comment which is, that as we start with scooters, in particular, in other words, what I see about scooters is it is going to be increasingly possible to move like a bicycle without necessarily the athletic effort of a cyclist. For those people who, for whatever reason, aren't in the position to do that and that opportunity to move more people in a bicycle shapes kind of thing, is really important, because what that means is that we're moving in a direction where public transport does not have to do the one kilometre trip anymore. The one, two, three km trips should probably be on a bicycle or a scooter and then public transport can specialise a little more, I mean, not that it won't still be there, it won't still be useful for it, of course you can ride two km's down Balmoral if you want but it means we'll be able to put stops

further apart, focus on slightly longer distances. For that reason though, the rule of thumb, and the rule of thumb that AT has used is 15 minutes. But, in a local thing, like Citylink, it would not be acceptable for Citylink to be every 15 minutes because that's just too short a trip, it has to be more frequent than that. The wall of buses? I want Ludo's view on the wall of buses, too. It's not a problem, I find that buses stop at signals and do other things that create ways through the wall and so I am personally not as disturbed by the wall of buses as I am disturbed by the wall around my life. And I am willing to tolerate some buses being present so that human beings can have freedom and opportunity in their city. Having said that, if you want a real wall of buses problem, go back to what the CBD looked like before the new network. When something like a thousand buses tried to enter the CBD in 15 minutes in the morning. I don't remember the exact figure, but the extraordinary inefficiency of network design is one of the ways you get too many buses, providing not enough service. I think what you want are a lot of buses providing useful service. And once lots of people are coming and going on those buses and those buses are spilling forward pedestrians, you won't see them as a wall so much anymore.

I think, one of the things that we've been talking about more recently, is this concept of not planning a city for rush-hour traffic. So what we tend to do, is we tend to plan a lot of these things in the peak. We build car parks for Christmas shopping so at supermarkets, so that everybody wants to shop on a certain time, one day a year, you've got enough space, the rest of the time, it's idle, redundant. So that's how I see Auckland. For many many years, for 40, 50 years. The streets are large, they're wide. They're empty of cars, but during the rush. So I think the key is really understanding how we can elongate that rush hour so it's maybe not called rush hour anymore. Maybe we sort of, I don't know, maybe there will be someone smarter than I with a better word for it but, push that out a bit longer, you'll get less wall of buses. And I think it's a good thing. It's a good sign that it's working. That's my, that would be my comment.

Jessica, what do you find the most frustrating thing about transport in Auckland to be?

It's definitely trying to get across town to somewhere. So for example, it's really really easy if I want to go directly from where I am to the centre of town. That's awesome, I can do that. I can, and rush hour, I can do it very quickly. During the day, it takes me a bit more wait time. What I find the most frustrating is genuinely getting to my workplace at the moment. That's very hard to do. I can only do that really in a car dependent way. If I want to go and visit someone in Papakura from where I live, that is also extremely frustrating. If I wanted to visit someone in Papakura and then go to town, I can still get to town from Papakura, that's excellent. So I think the most frustrating thing is trying to get across town to things, or again, I think it takes a bit to, I mean, that's my personal experience, but in that way it could also be the multi-stop trips where you're going, I guess, not to the CBD is probably the most frustrating thing.

[Jarrett] It used to be much worse. - You used to not be able to get to the CBD either.

Daniel and panellists. So I'm assuming it's for everybody but you've got to answer first. How can we get bus lane users, cycling lane users and private car users to cooperate with each other? -

How long have we got? Well, I'm a cyclist. I came here on my bike, we came here on our bikes tonight. I ride down Dominion Road every morning in the bus lane. I'm comfortable with that, but

I'm a nearly middle-aged male whose been- thanks for that. and so I'm confident and I'm happy overtaking a bus, having a bus squeeze by, well, not happy. I'm familiar with a bus trying to squeeze past me and I deal with it. And I actually did some research when I was at university into how bus lanes, I found that the wider the bus lane is, the safer it is for cyclist. I mean, go figure. There's more room for the bus to get passed you. So, I think there's that special element that Jarrett keeps talking about, but there's a behavioural politeness element about how we behave with each other and that you see that on the streets every day. When people are perfectly polite to your face, but you put them in car, all of the sudden they just see red and they just want to yell at you and give you the fingers. I think we need to have a much greater acceptance of the shared need for safety and being able to get to your destination that we seem to lose as soon as we get behind the wheel of a car. And as a cyclist I feel that acutely. Because when I have an incident with a car, I come second best whether it's my fault or not. So which is why I make my kids wear their helmets on their bikes. We say "a lady get hit by a car the other day on her bike". And it was terrible, but it was useful for me to use that as an example for my children, to say this is why I go on at you like a grumpy old parent. And I want them to be feeling the freedom to go out and cycle and walk all around our neighbourhood and into town. And not to be scared of these buses as these horrible things which are terrorising the streets. So, I think it's behaviour. I think the physical design of the street has a lot to do with it and we need to do better about that. We will never live in a world where we have enough space to provide a separated thing for everybody and they can all do their own thing independently, that would be great but, we don't and shouldn't have that. So, to me, that's why I think the emergence of special, specially efficient vehicles and technologies is going to be a big help here. So that people can make choices and feel safe, feel comfortable, feel able to make all the trips that they want to make in their daily life without having to just say, "Oh bugger it, I'll get in my car and drive."

I can have a go at this one as well. I think they need to turn the transport hierarchy pyramid upside down, which means we need to put people who are walking at the top of that. People who are bicycling next to that. People who are taking public transport by that. And so on and so forth so the people who are flying get the least priority. They already kind of do anyway at times, so but I think the key thing is we need the supporting legislation that goes with it too. And it needs to be built into a road code so it is actually very rarely, or almost never going to be the fault of the person who's walking if they are in some kind of accident involved with another vehicle. And it kind of goes on by layer of vulnerability rather than by layer of accident or human error. So, therefore people who are in a vehicle who are more likely to do more harm, need to be holding a lot more responsibility at all times, when they're behind a wheel.

How do other cities provide freedom for people who cannot walk far during any part of a journey? Similarly, what is the most effective tool for making a city easier to move about for young people and the elderly?

So, we have this challenge in public transport planning, which is that most people will be willing to and will walk a good 400 metres to a useful public transport service because that is the way they maximise their freedom. They are being logical in doing that. And so we get the most freedom for the most people by designing a network where parallel routes are around eight or

900 metres or a kilometre apart, not closer than that. Because that's how we build up frequency and frequency is freedom. However, we then have public meetings and we hear, particularly, from people who have difficulty walking and we respect that and we know that that's a mixture of, it's inevitably a mixture of "I just don't like you changing my bus route. I don't like having to walk further," and some people who actually can't walk further. Those are two different things. And that ultimately there needs to be a backstop for people who truly can't walk those distances. And that is, in America we call it paratransit, there has to be some sort of underlying demand responsive service for those people. But there has to be a pretty good eligibility limit on it, because most people can walk. And the way the system works best is for most people to walk and walking is good for you, if you can do it. So, that's more or less how it's done. I think with young people, ya know, it depends a lot on the parent's attitude toward their young people. I started changing buses in the rain when I was 10 years old. I was sent all the way across Portland to school and changed buses in the middle of downtown. At a time when there was much more crime than there is now. I survived that, obviously I was male, which helped. But, I think children tend to be much more resilient than their parents sometimes give them credit for. But, I think that it is, of course, a parent's judgement what you're going to do. By and large, I think what we see with public transport is that there is an age, and it's sort of the parent's choice, for me, it was 10, when you say, "Okay, this person's capable of functioning as an adult on the public transport system and navigating it and doing everything that an adult would do." and there's no reason, really to have any special accommodation here.

I knew this one would come up. 10 thousand steps a day, is a healthy amount to walk. However, if we flood the city with scooters, are we adding to the obesity epidemic?

Sure. - Yeah. - Yep.

So, we've talked about walking to and from public transport. The Lime scooters can fill a void too. The hover boards will come at some point, they'll help. But a lot of what the underlying philosophy there is being active and not being in a large, space inefficient vehicle. So walking around the corner to find the Lime scooter and then finding somewhere to drop it off, or going and getting another one because the battery's flat all makes people walk. And, I think we've historically made, designed buildings and streets around the car park and the car access and I think increasingly that was a foolish thing to do and we'll be changing that. And we'll be looking for shorter connections that can be made on foot or on a small electric transit something. Which will induce a lot more walking that people don't even know they're doing. So, ten thousand steps is great and is real pain to force yourself to do it, but the best kind of steps you can get is when you don't know you're doing it. And your active day delivers it to you. So when I catch a bus, I walk a lot of steps. A lot more than when I ride my bike and I don't realise I'm doing it, but I get home and I'm tired. So I think, that it's about the way you integrate those transport services into your lifestyle, will just automatically, if you do it well increase the activity of people and I guess encourage them by some sleek design, to move around the city on foot a bit more than they otherwise would.

Could I challenge you on the hoverboard thing? 'cause I, kind of, I'm really concerned about some of the technology that's out there and the technology is it's a master servant kind of conversation and technology serves the city, not the other way around. It's a tool that enables

you to move around, to move freely, it's not the be all, end all. I think if we're not careful, we will start walking a lot less. Human beings need to walk. We are an animal as Jarrett talked about earlier, with some really basic needs. And those that obviously can't walk, I think autonomous vehicles and so forth, is an incredible, incredible invention that will change their lives. So, you know, I get that. But if we are thinking about the future of cities, being more hoverboards, drones, I hope I don't see that because it'll, we'll come just like every other city that thinks that transport is going to be solved by the technology and I can think of nothing more horrendous than people flying around in these types of situations. Human beings need to walk. That's why we're here, that's why we're called human beings and we need to keep walking to stay alive. My parents have a house with three staircases in the house. They're still alive because they walk around that house. People are given a flat house, single story who don't have to climb stairs are unfit, are more obese, and unhappier and it's really interesting. Human beings need to keep moving as long as they can. So I'm just concerned about hoverboards and things. I hope I never see them.

Yeah, I, what I think- I've seen back to the future, I know what's coming. So, but I think maybe the more relevant point is, I agree with Ludo that technology won't save us and the thing that I'm most scared of is when I'm talking to or finding out what people in the Ministry of Transport and places like that are looking at. And they are looking at the way technology will make car trips more efficient and autonomous vehicles and things like that which is the wrong application of the technology and I totally agree that that would be a terrible outcome. So, I guess I've been a real sceptic of technology will save us, because that's the way I've seen it being applied. Just a new technology applied to old thinking. And I think what Lime scooters, to me, unlocks is people going "Oh, I didn't realise we could do that. That's another way of me getting around in a more space efficient way." And they start to do more trips on foot, or partly on foot. Within the City Centre at least. Which is something that we are not prepared for and we should be. We should think about more ways of enabling that to happen. And stop focusing on whether they've got a helmet on or not, just make the whole street safe for everybody would be good. Then we wouldn't have to worry about how fast they're going or whether they're on the footpath or not. - Sorry, I just also wanted to ask, like, who really thinks that a hover board's going to be easy to manage? Like, honestly?

So you've spoken about the need to be active and to move around and whatnot. Jarrett's book is entitled, Human Transit, How Clearer Thinking About Public Transit Can Enrich Our Communities and Our Lives. Located underneath one of your seats is signed copy of Jarrett's book. If you'd like to move now, you might find it under your seat.

[Daniel] Not mine. - If there is a spare seat next to you, shuffle along and check that too.

Okay, so now what we're going to do, is we're going to open it up for questions from the floor. So, we've got a couple of mic runners. If you want a succinct and formative answer you'll ask a succinct and formative question. If you want a long-winded waffly answer, you'll ask the same. So, in the interest of time, also please direct your questions at one of our panellists, or if it's for everybody, please state so.

[Audience Member] Thank you for your presentations. This question is for everybody. The reality now is that we have a city with a lot of cars. And some people taking buses, some people

cycling, some people walking. I do all four of those. However, I am put off cycling in particular, because there is no cycleway close to where I live. We live in Epsom. How do we encourage people to use active transport when we still have to mix it with the crazy car drivers of Auckland? Why don't we make our bus lanes 24 hours a day, seven days a week? Why don't we also provide cycle lanes on those roads, like for instance, Manukau Road, or Gillies Avenue which are wide enough and could have a cycle lane and make it 24 hours?

Okay, so on behalf of Auckland Transport, I can answer some of that. Although some others might want to have a say so, we are actually about to start a project called the Integrated Corridors Programme, which is a bus lane, cycleway, safety programme, which is looking at 11 corridors across the region but actually on the Isthmus, I don't know whether Manukau Road might be one of those. I think it is, people nodding, good. So, that is all about the fact that we have typically gone and applied one mode or solution. We've come and put in a bus lane, and later on we've gone somewhere else and put in a cycle lane and we've done a safety project over there. And more and more we are recognising that that was a foolish thing to do, we should put them together. So we've combined the bus lane programme, the cycle programme and the safety programme and we're doing an integrated corridor work that will be hard because as it has been said a lot of times, they're not making any more space on those corridors and we're going to have to make compromises about who wins where and to make safe cycling infrastructure in particular, is going to be really hard because there's a new thing that we're putting in that's going to make the most change. Bus lanes have been around for a while, and you can usually you can just do a bit of paint. A dedicated, safe, physically separated cycleway is tough and sometimes we're going to have to cut down trees to make a bit more space and that's going to be hard for the communities. We're going to have to take out things that they appreciate, like place for refugees or parking or features that we really like, or things that make things work well. So, that's going to be a challenge for us, but we are fronting it more than I think we have in the past. In terms of the 24 hour bus lane issue, sometimes we do have them where we can get away with it, but very often we put in the peak time only, because that's when the most buses are there and outside of those times, the bus lanes look empty and we get a lot of push back from the local communities to say, "I'd like to be able to park in my shops." Or whatever, "Outside of ours." I think increasingly as the frequency goes up and up and up and the multiple layers of the bus network come together it will be self evident that they need to be longer hours whether they're 24 hours or 12 hours or whatever. That will change, but I think that will be the reality of a new city where we're having more people around, more people moving and the need to accommodate them all in the same space.

If I could just add, paradoxical fact everyone needs to remember is that when a bus lane looks empty, that means it's working. If the bus lane is jammed, that means it's not working. So of course, the bus lane looks empty. That means it's working. We get this especially from the perspective of motorist who's stopped in traffic and sees that empty lane there and now and then a bus goes by so fast they don't even see it and so the lane looks empty to them. No, that means it's working.

I'd say that there are a multitude of reasons we could probably have an entire conversation just about the reasons why we can't have all those outcomes. Some of them, though, are simply

money. From my role in a local board, we get a small amount of money that we can apply to small funds, small end projects and the cost of actually sometimes putting something in so far exceeds it, that's there just nothing you can deliver. And it's a real shame. So, one is that. And I'd say another one is, and I kind of want to pose this to the panellists as well who work in these professional realms is, are we innovatively looking at the way we're using the space 'cause there's a lot of traditional ways that we're used to. Could we allocate the road corridor differently than what we used to doing it? So that's more of a question.

Can I just perhaps talk, respond to the lady that made the question. I think the question is fantastic, I think Daniel's given a good answer. There is a lot of change happening in Auckland at the moment and if you think back to the 1950s, Auckland had the highest patronage of public transport per capita in the whole world so we were the leading city in the world for PT patronage. Today, we're one of the worst. We've taken 50, 60 years of motorway road building, that's been our agenda. We ripped up the tramways in the 50s. We built a very different type of city. There's a lot of space and Jessica's right. Ya know, it's about reallocating that space. It's about understanding who your city is for. You also talked about money, Jessica and at the end of the day a lot of big projects don't have any budget for walking or cycling. And I think that that's another way to get this programme up and running because it's always like the icing on the cake. Or it's the nice to have, it's got to be about the must have, it's got to be in the money, at the front. It's part of the project budget, rather than something we have to run around with a begging bowl. So it's about changing that. And I would say that the new government has been amazing. 28 billion dollars is coming to Auckland over the next 10 years. We've got a long way to go, I mean it's not going to even touch the sides, but it has to start and we're on a journey and the bus network, as Jarrett said, is an amazing global success story. The way that has transformed our city and will continue to do so. So we're putting all these things back in where we haven't even started with light rail. We might be the last place on Earth, if we're not careful. So these are things we've done badly in the past, but we have a plan and we're about to start rolling it out and this is the right conversation but, it's going to take ages. Many of us won't be around by the time it's finished. But, that's just life, it's all about the children anyway so as we started today with, so good question. -

[Audience Member] What is the plan for improving, this is probably a question for Daniel, the interchanges? So, if interchanges are key to the transport network, if I'm travelling with my two kids who are five and seven and easily bored, how do I improve the experience for them at the bus stops with regards to pollution and wayfinding and just trying to negotiate to other stops and also on the buses knowing when I have to interchange if it's something we haven't done before?

Yep, good question. Very happily, my team at AT has just started a project called Neighbourhood Interchanges which is developing the business case to get funding for improving neighbourhood interchanges, where two bus routes overlap. Coincidentally, I was also in the customer central part of AT today for them to try to figure out how better to, not doctriated, that's not the right word, integrate customer understanding within all of our AT business processes. And they specifically mentioned way finding, universal access and kind of diverse trip purposes. So much of our planning is set up for commuting trips and that's how we've designed things to be used and where things are positioned. As a parent who takes my two kids

on the bus after school to a squash lesson and has to bring all of their equipment and their school bags and grumpy kids with me, in the rain, with no bus shelter. I appreciate that as a challenge. I think it was, I can't remember who mentioned about, Ludo saying he wasn't a woman or wasn't disabled or something. I think we have, it's been people like me, who's been designing the system and that's not right, it should be people like Jessica, people like you who should be designing and planning the system so that that works for you. So I think AT will begin going forward doing a lot more of that customer understanding, What is voice of the customer what does it need and how does our current design not to meet those needs? I think we've got a long way to go and as Jessica also said there's not a lot of money to retrofit some of these things and that's probably going to be. I think the intent is there. The will is there. The hard thing will be actually getting on and delivering it.

On the theme of design. How do you balance the need to move more and more people to more and more places with the need to create places and spaces people want to be?

I'll take that. If you're experiencing that as a conflict, you're doing it wrong because when you do it right it's not a conflict. You have to work- we all need to experience place and we all need to experience movement. That means place needs to accommodate movement and movement needs to accommodate place. If you're experiencing a conflict about them you may be experiencing a conflict that is really about an inefficient use of space and that we're not allocating space correctly. It is also true though, that your notions of an ideal place, need to take into account and adjust for the realities that movement is also a human need. So yes, you're going to need buses to go down certain streets so that human beings can have the freedom of access to their city that may not be your perfect aesthetic vision, but you have to turn that into a virtue and embrace that. Because movement is part of life just as much as place is.

[Audience Member] Hi, this questions for Jarrett but I'd also like Jessica and Daniel to be able to respond as well. So women and urbanism conducted a survey the beginning of this year, that showed that over 85% of women in Auckland have been harassed while using our public transport and walking and cycling network at some point. How can we be designing transport that gives a woman freedom from harassment. 'Cause I just don't see that we can have freedom in transport planning without freedom from harassment and we need women to be safe when taking those trips. So, I'd really like you to answer that one.

Not being a woman, I think the easiest answer is to have more women at the table doing the design. There is a, but there's a general question about crime and safety on transport that's implied there for which the answer is paradoxically, the more people use public transport the safer it is. And so we have to manage that, we have to honour the feelings of people who choose not to use public transport out of those fears. We have to honour the courage of people who choose to use public transport anyway, despite those fears, because only because people are there, will more people be there and will we ultimately have witnesses when stuff goes wrong. So, it's not easy. I mean there's a whole bunch of infrastructure things about that. Lighting, good interchanges and so on, that are part of that, but I think also just having your perspective at the table is very important.

Yeah, and I think that was one of the things that I just mentioned earlier on. That's part of that freedom from when creating freedom. So it's two things, it's freedom to get places, but it's freedom from some behaviours and some of that I think our society and our culture needs to respond to that, it's not just the mode. The mode is one thing, you need to have empowered people who are able to make actual changes. I know, personal experience, if I'm on a train and somebody's behaving poorly on the train, my train warden isn't necessarily empowered to do anything about that. And so that's a real challenge and I think so, sometimes empowering safety personnel is useful and then the basic accepted idea around lighting. Around, yeah, around people being there. So there's a few ways to approach it and some of it is not just the transit. But some of it is empowering the security.

I don't think we should need to, have to change the system, I think the problem there is with the men, not with the system to be honest. It's the culture so, I think more lighting, CCTV better guards on the trains is the wrong approach myself, I think the problem with the men behaving badly and I apologise on behalf of men. It wasn't me, I'm always, we had a conversation at the beginning actually before this started about the behaviour of men and how they treat women and I'm constantly shocked and I'm appalled about a different way of behaving just because the person you're dealing with is female and it seems wrong from my perspective to be saying we need to design the system differently, make the building big and wider and more well lit. And more escape routes, or whatever. I think that's failing to address the real issue which is a societal issue that falls on men, to the way they behave and treat people around them and I think I would love to be in a position where we don't have to talk about changing the system for that purpose.

Unfortunately I've been given the signal and I'm also being stood over the left turn so, panellists and Jarrett, thank you very much for your time this evening. Ladies and gentlemen, if you've not been able to ask a question this evening, our panellists will be staying behind and you'll be able to come up and ask them questions.

Now I'd like to ask Jenson Varghese, principal consultant and New Zealand regional manager at MRCagney to lecturn To do the vote of thanks.

Thank you, Eddie. I'll try to keep this quick 'cause I think there's still a few more questions for the panellists to do after we finish up.

Just thank you very much for the opportunity to sponsor this event and thank you to the Auckland conversations team for organising it. For those of you don't know us, MRCagney, we're a sustainable transport consultancy so we specialise in public transport and walking and cycling and we've been doing this in New Zealand for about 15 years now and we've had the pleasure of working with Jarrett and the Auckland Transport team on the design of the, and implementation of the new network. So, it was definitely a privilege to be able to sponsor the event today. Key messages from today. I guess there were so many to choose from but I think a powerful image for me was this wall around your life, but as we think about a city and we think about all our people, it's not just my life but it's designing or thinking about everyone. Women,

not just the peak hour commuter. It's the elderly, the children, the less mobile and how we can grow that wall for more people. So making it larger but also making sure it applies to more and more people within our population and so when we think about the Auckland Conversations event, a big part of it, is informing the public and so I think a call to everyone here today is the city's changing as Auckland transport's going to roll out some new initiatives, some new projects.

There will be controversy, there will be public criticism and I think it's the role of all of us, as members of the public, if we agree with what Auckland transport's trying to achieve or what the project is we need to speak up because there will be lots of criticism and a lot of that negative feedback comes back, but it's also really important that the public gets behind and says "We agree with this, we realise that we're going to lose some parking, but it means safer streets for our children." I think that's a role that we all have as members of the public and so hopefully, you all sort of take that as we, sort of head towards the end of the year and all the new projects for next year. So, just quick thank yous to Eddie for MCing the event. To Jarrett. Great to have you back in Auckland again. To Jessica, Daniel and Ludo. Thanks for all your contributions. Thanks to everyone who's come and stayed till the end. Thanks to everyone who's watching online there. And to Auckland transport for being the partner organiser for this event.

This is the last event for Auckland Conversations for this year so please keep in touch via the website and social media about upcoming events for 2019. All these presentations can be seen online as well. And a massive thank you to Gene and the Auckland Conversations Team for organising this and all the events throughout the year. I think the panellist will stick around for further questions after this, but, thank you very much.