Auckland Conversations Transcript
Vision Zero
Wednesday 15 November 2017

[Dr. Lester Levy]
Good evening everyone, Tēnā koutou
Welcome to another Auckland Conversation event. You're most welcome. The Auckland Conversations provide us an opportunity to inspire and stimulate your thinking about the challenges facing Auckland, and we have quite a few of those. It is also a time for us to consider the opportunities that we have. And tonight we focus on the opportunity of Vision Zero for safer streets for Aucklanders, my name is Lester Levy, and I will be facilitating the Conversation this evening.
Thank you very much for joining us tonight, we really appreciate your time, this is a really fantastic turnout, and we also welcome those who are joining us for live streaming. Just a few housekeeping notes, in the event of an emergency, pretty unlikely an alarm will sound, and we'll be directed out of the building through the back row by ushers. The bathrooms are located at the back of the room, to the left of the bar, and finally, could you please turn your mobiles to silent, that would be greatly appreciated. We really would like to acknowledge our event partner this evening, I feel slightly conflicted, as I'm the chairman of Auckland Transport, and the event partner is Auckland Transport. But we're very thankful to Auckland Transport for the wonderful support... And I could spend hours on them, but I won't.

We also really want to thank the Auckland Conversations event sponsor overseeing, and all our programmes supporters, we're very grateful for their support.
Tonight, we are joined by a group of panellists that represents sectors that are impacted by, and taking action to address the high rate of road crashes, and serious incidents, and the statistics that we're all aware of on our roads, which we find deeply concerning.

We'll talk about the international approach, called Vision Zero, which has been successful in many other overseas cities, and it's something that we are greatly interested in.

The format tonight, will be a discussion with our panellists, but we will start with a presentation from our esteemed visitor, Dr. Matts Belin, a senior policy adviser with the Swedish Transport Administration, and an international authority on Vision Zero, and we're greatly privileged to have you here with us tonight, Matts.

You're welcome to tweet during the evening, use hashtag... #AKLConversations. If you'd like to join in the Conversation, we'll be taking questions from the floor during the Q&A session that will follow directly after the panel discussion. So, you might want to think about your questions, and when you do have a question, please keep it brief.

You can also ask questions via twitter, and through the #feed, and that will be monitored as we go, if time allows, we'll include questions during the panel discussion, and the Q&A from these sources. We try to ensure that Auckland Conversation events are inclusive, and accessible, so there's on demand viewing of the event. A full transcript, and captioning of the event, and presentation will be available on the Auckland Conversations website in the next few days. You'd be encouraged to have a look at that.

So much has been said about the transport challenges faced in Auckland, it's growing by over 800 people per week, and with that, congestion continues to increase.

We have had success in growing public transport, and we intend to do that a lot more around our region, and more people are choosing to cycle as safe infrastructure is delivered. But our network needs to be safe as well as efficient, and 2017 has been sobering, a really bad year for serious road incidents.

Every week, we hear of more people, being seriously injured, or sadly killed on their journeys. The street is safe for all users, drivers, walkers, and bike riders, and children in particular, and improves the health of those who use it.

We know from international experience that the cities that are best at moving people efficiently are also the safest. The Vision Zero approach aims to achieve a transport network with no fatalities, and serious injuries involving road traffic. So we need to be a lot more aspirational, and it's important that we don't normalise the statistics that we have, we really got to find it deeply unacceptable, and this is a responsibility that we have to all take, and share.

It is an approach, Vision Zero, that is, as I said previously, been taken in many international cities, and we look forward to having the conversation with Matts and our panellists. It's now my great privilege to introduce somebody who needs no introduction, and that's His Worship The Mayor Phil Goff, a man with a great vision for Auckland, a great vision for transport, very supportive of what we're trying to do, and somebody who deserves our support as Aucklanders.

- [Mayor Phil Goff]

Tēnā koutou, tēnā koutou, tēnā tatou katoa And good evening, and welcome to Auckland Conversations tonight.

Can I begin with an apology. I managed to get myself triple booked tonight, three different speeches, but fortunately, all of them in this building, So, I hope Matts, I can hear the first part of your presentation before I need to rush off to the next function I'm attending. I regret I can't be here for the whole thing, because I think what we are looking at tonight is a critical issue for Auckland, it's literally a life and death issue.

We celebrated for a long time, a fall in the road toll. There was a time when 800 people, or more, a year were dying on our roads, and we thought we were on top of the problem, but in the last four years, the steady decline in road fatalities has turned around, and we've seen a worsening trend that is something we cannot be complacent about, that is something that we must address, and that is why tonight's meeting is so important.

Can I, first-of-all, acknowledge our Master of Ceremonies, Dr. Lester Levy, there are a lot of reasons why Lester is the ideal person to be the chair tonight, he is of course, the chair of Auckland Transport, and he understands the transport issues, including road safety in Auckland

as well as anyone from that perspective, but, he's also the Chief Executive Officer of three district health boards, and he understands the consequences, the human and health consequences of failing to get on top of our road toll. So, Lester, I am looking to you, no pressure, to make the recommendations around the actions that our council, and our government need to enact in order to reduce, and hopefully, eliminate our road toll.

I'd also like to welcome tonight, the chair of the Waitematā local board, Pippa Coom, and Pippa and I were at a function last night, and she was giving me a preview of tonight. And I know she is an absolutely strong advocate for the programme that we are talking about tonight, Vision Zero.

Can I also acknowledge other elected representatives that are here, I haven't been around everywhere so I dare not start mentioning names, cause I will omit some, but very good to have members of the local boards around Auckland participating tonight.

But of course, most of all, I would like to welcome our special guest tonight, Matts Belin. Matts is a citizen, and a resident of Sweden, but he has a very special role, and that is as an advisor to the Mayor of New York, Bill de Blasio, to the American Federal Government, I don't know whether he has any connection with the president, but if he does good luck. And also an adviser to the United Nations on this issue of Vision Zero. We could not be more privileged to have a better speaker, and a better insight into those topics. Vision Zero, of course, promotes the view that no loss of live on the road is acceptable, Dr. Belin will explore... How Vision Zero works, and what Vision Zero in Auckland could look like, least that's what I hope you're going to do, Matts.

He'll share with all of us, road design, and engineering solutions, that will also make our roads safer. Could I also, to begin with, acknowledge the members of the panel tonight, and welcome them here, Andrew Allen, the Chief Transport Operations Officer at Auckland Transport, Caroline Perry, the Development Director at Brake, and Dr. Rhys Jones, a public health specialist at Auckland University.

This afternoon as I was just thinking about the event tonight, I had the opportunity to watch a video produced by Victoria Roads in Australia, I don't know whether any of you have seen it, but it's a particularly good video. They're doing an interview with a man, he could be any member of the general public, and he's told that the road fatality rate in Victoria last year, not 2016, was 291. He was then asked, what would be a more acceptable number, and he shrugs, hadn't really thought about the questions, he said "maybe 70". Now, maybe he could be forgiven for that, because 70 would be a quarter of the rate of road fatalities in Victoria last year. And then the facilitator of the meeting calls in 70 people to stand up at the front of an audience, and you see mums, Dads, children. You see grandparents, you see grandchildren, you see members of a family, and you see their faces, and they are not statistics, they are human beings. And the man, as any of us would in his position, look absolutely devastated, and he's asked the question again, what would be an acceptable number, and he gives the answer that I hope all of us would give tonight, and that acceptable number is zero.

I, along with many other New Zealanders have confronted the tragedy of road fatalities in my own family. I was in my early 20s, and I was pole bearer for a niece aged seven, at a funeral, in

which my uncle was also buried. And they called it a road accident, but it wasn't an accident. He, and his daughter were killed by a person that chose to drink, and then to drive, it was no accident, it was almost an inevitability at the amount of alcohol that he had consumed.
It was the deliberate act of drinking, and driving, and that is one of our major problems. Speed on the road, and probably if we're honest, we're all guilty of that.

It's about an intention, it's about poor road design, and other factors, all of them lead to disastrous consequences. I looked up the statistics for Auckland, in Auckland, one person, on average a day, gets hit by a motor vehicle while they're out walking, and every third day that person dies, or is seriously injured.

Last year, in Auckland, there were 46 people killed on our roads, and 610 seriously injured. These are not statistics, these are human beings, and every one of those 46 people who died, was an absolute tragedy for their friends, and their family.

There is a lot that we can, and must do to prevent this. And tonight's discussion, I hope, will point to the directions we need to follow to achieve Vision Zero. It's not that it hasn't been tried elsewhere, Stockholm, and New York have both shown, just what can be achieved when we approach this problem with absolute determination. There are of course, costs associated with implementing Vision Zero, but you can guarantee that those costs are nowhere near the magnitude of the human, and social costs of the carnage on our road, and even the economic consequences, which run into billions of dollars.

So thank you very much for coming along here, tonight, Thank you, Matts for being our special guest speaker tonight, and thank you to all of the panel members, and I'll ask you to join with me in welcoming those people to tonight's Auckland Conversations.
No rera, Tēnā koutou katoa

- [Dr. Lester Levy]
A very clear message from the Mayor tonight, it is an interesting time for us at Auckland Transport, because quite independent of this, we have a Board led review of the approach at Auckland Transport, to road safety, and it's almost the perfect intersection. And realistically, we will have to face a lot of tough decisions about resource reallocation, but we have to, and we must take this more seriously.

Dr. Matts Belin is the Senior Policy Advisor in the Swedish Transport Administration, his long history working with the Swedish government, and primarily with safety policies, strategies, and collaborations. He's worked for the World Health Organisation, where he participated in the development of global road safety strategies, and partnerships. He's chaired technical committees in the World Road Association. He is Senior Policy Advisor, as I've said to the Swedish Transport Administration, and responsible for the development of Vision Zero Academy. He's also affiliated as a professor at the KTH Royal Technology Institute in Stockholm, Sweden. He's a Swedish delicate to the UN road safety collaboration, and international representative at the US Transportation Research Board, and we could go on, but we won't

We have a real privilege tonight, to hear from Matts, but before we do so, we're going to take just a few minutes to play a video, it's Australian, but it's not the same video that the Mayor was referring to, it's a short video. It shows the work of the Towards Zero campaign in New South Wales. Decisions are made every day about safety, and this is the confronting challenge, so we'll have that briefly, and then we'll welcome Matts to the stage, thank you.

VIDEO

- [Interviewer in Video] Last year, 380 people died on our roads, what would be a more acceptable number?

- [Interviewee] acceptable? 70 maybe?

- [Interviewer in Video] actually, this is what 70 people looks like.

- [Interviewee] it's a family.

- [Interviewer in Video] so now, what do you think would be a more acceptable number?

- [Interviewee] Zero. Zero.

- [Dr. Lester Levy]

We'll welcome Matts.

- [Dr. Matts Belin]

Thank you for all this, warm welcome words. It is great to be here in New Zealand. I had been here since Tuesday, last week, and been I've been in Nelson and Auckland. New Zealand has been a fantastic host for me during this time, and I learn a lot from you also guys. But I tried to be here to share some of the experience that we have now from Sweden, or from other countries. And I must confess that my collaboration with US, started before this administration we have in place now. So we'll wait and see what's happening actually, but there are lots of interesting thing happen all over the world, I will say.

I think there is a kind of culture evolutions going on around the world or I could call it a global revolution. When we introduced cars into our society, we thought that it's up to every individual to survive in a harsh environment, but then most countries, at least in the western world; we start to think that now we have to do something about this problem. But we thought that we have to accept some victims, it's a kind of price that we have to pay for our mobility.

But now around the world, you see more and more, just like the film you just saw, that people given to it, can never be acceptable, the people get killed and serious injuries within our transport system. And I think in 1997, when the Swedish Parliament adopted the Vision Zero in

Sweden, that was the first time when that was really on the agenda. And today, we in Sweden, we celebrate the 20th anniversary with Vision Zero.

But it's not only about an ethical imperative. Vision Zero is actually it's a paradigm shift in the way that we work with safety. One way for me to explain this difference is to talk about how we used to do it, the more traditional way to work with safety. And the traditional approach to safety, the problem that we tried to solve, is the problem with accidents, and we know from in depth studies that 90% of full accident, or crashes, are due to the human factors.

That is kind of mantra, and it's been there since the introduction of the car, when I see some of the Committee inquiries from 1920s in Sweden, I can read this, they say that 90% is due to the human factors, and therefore in most countries, nation, we have put the ultimately responsibility on safety, or nothing, in individual road users.

So if something goes wrong out there, you can always find someone to blame. And our strategies have very much been focused on trying to creating the perfect human being, who is always doing the right thing all the time, and our strategies have also been very much, based on the idea that people don't want safety. We have to educate them, we have to enforce them, we have to regulate them, and we don't think that we can eliminate this problem, we are quite happy if we can step-by-step, reduce the risk, but we think that this is a price that we have to pay for our mobility, there is a kind of optimum of fatalities, and serious injuries. And I would say that Vision Zero as a policy, challenge all this aspect, all this dimensions when it comes to a policy.

The first thing in Vision Zero framework, the problem that we're trying to solve is not the problem with accident per se, the problem that we're trying to solve is problem that people get killed, and serious injuries, that is our focus. And the reason, why people get killed or serious injuries according to our Vision Zero approach is because people are people. We have young people, we have old people, we have all kinds of people using our transport system, and people make mistake. And instead of hoping that we can create this perfect human being, who's doing the right thing all the time, we have to accept that we have to create this system for humans instead.

People are fragile; we know quite a lot now, how much kinetic energy our body tolerate without any fatalities, and serious injuries. So let me take an example, if you have a typical four lane intersection, and you have a problem in that intersection, the traditional approach to solve a problem in that intersection is to put up a traffic light, and the number of crashes will be reduced due to that traffic light. But the typical scenario is that someone, by mistake, goes against the red light, and due to the high speed, the outcome will be very severe. But if you have a roundabout, the crashes actually might increase a little bit, because it becomes little bit more difficult to drive in a roundabout, but those who will happen will be less severe. So, a traffic light, and a roundabout might actually be the difference between life and death. So therefore, in a Vision Zero approach, in framework, the ultimate responsibility for safety is put on us as system designer. Of course, the road users still have a responsibility, but if something goes wrong, it goes back to us as system designers.

That's why also, for example, in Sweden, we started to move a problem just like the Mayor said, drink and driving, we start to move that problem from being only a behaviour problem to a design problem, so we think then in the future, you'll have some kind of device in your car that will prevent you from drink and driving. Alcohol kinetic kind of technology, this kind of technology will be as common as a seatbelt. So, we move that problem from a behaviour problem to a design problem, I will say.

Vision Zero is also very much based on the idea that people want safety. When we know the options, when we know what we can choose between, we have noticed that there is a real potential for demand for safety. And I think the best example we have on this in Europe, and Sweden is our EuroNCAP, the car assessment programme, because usually, traditionally, and historically, the industry and the government, they have negotiated a kind of standard for safety for the cars, and you know, when you have that kind of negotiation, the outcome from that kind of discussion, will be a medium of standard.

But as experts, we know that some of our cars, they will really just be above that standard, and some of them will be really safe. But as a consumer, we don't know, we don't know this, so this car assessments programme really tells that this car is just five stars, and this car is one star. And when we tell people about this, we see how the market dramatically changes, almost overnight, I will say, and it's same when it comes to urban traffic. When we start to talk with parents, and others, deducing the system every day, we can see huge demand actually for safety. And of course, in the long run, we would like to eliminate fatalities, and serious injuries.

This was actually what the Swedish parliament adopted in 1997, but you all know... that is a white paper, words on a paper, it's a total different story to get from words, and ideas to implementation. And fortunately, we have been able to do that in Sweden.

I will now give you some example on how this kind of, philosophy have a dramatical impact on how we work with safety both, in urban area, and in the rural area. And in the late 90s, it started with the municipalities. This is a typical Swedish municipality, at least you have a sidewalk, and you have the zebra crossing, and the default speed in this environment is 50 kilometres. No-one really thinks that there is any problem in this situation, they think it's okay. But, we know as experts that if you get hit by a car, in 50 kilometres, the risk that you can kill is more than 80%, and if you get hit by a car in 30 kilometres, the risk is less than 10%.

So it's a huge difference between 30, 40 or 50, but we as a driver, we don't understand this, you know. We can drive in 30, 40, or 50, or 60, we have no perception at all when it comes to kinetic energy, and we don't really understand that. But if we could transform this situation to something that we really understand, the risk would heighten and would look like this, you know.

So you can imagine what kind of demand on interventions, if people understand this. And this zebra crossing is extremely danger actually, this is what we actually have every day, every time, we are out in the road, transport system, and the whole take care of this safety now, between this unprotected road user, it's only up to us to negotiate... about safety this situation.

So when we start to talk with our road engineers, and municipalities about this problem, because basically, this is really the scientific, evidence the scientific based for Vision Zero, this risk curves, and we start to talk with municipalities, we can see a dramatic change of how they do their business. If you go back in the late 1990s, and compare how it looked like now, you will see lots of speed bumps, lots of 30 Kilometres signs, you will see lots of traffic calming share spaces where you give priority to unprotected road users, you will see lots of roundabouts, and everything is about controlling for harmful energy.

Even here you have some new kind of solutions, actually if you drive too fast, a radar will detect it, and the thing there will go down, and it will be like a bump. Okay, you do it once maybe, and then you never do it again.

So, it's a very easy thing, but if you keep the speed, because this is very important for public transport, and some, if you keep the speed, then you will not feel anything. So that's one way to kind of, nudge people to do the right thing, you know.

But it's not only in the urban area; we have done lots of things here. Also because here in Auckland, I think there is lots of discussion about, is it possible to have roundabouts when you have bicycles, cyclists and so on, and this is a good example on how we design things that also accommodate for cyclists. There are lots of examples now, that we can really do a good design of things.

But in the rural area now, we used to have lots of this roads, and if you calculate the number of crashes per kilometre driven, the road and its engineers, they will say that this is a safe roads, but if you calculate the number of fatalities and serious injuries per kilometre road, these were our death roads.

The major problem is head-on collisions on this road, and the traditional way to try to solve it was through education, to try to teach the drivers, how to make safe overtakes, and use the police to enforce this kind of roads, but to be honest, it really didn't work actually.

An option could be, of course, to build a motorway, because we know that the motorway is very safe, but they are also very expensive, so in that time, it cost about one billion per saved life with a motorway, so that was very expensive, but we come up with an innovation, we call them two plus one road, and I think you have some example of that here in New Zealand. Basically sometimes you have two lanes, so you can make a safe overtake, and sometimes, you have one lane, and then you go in the one lane for one kilometres, then you get two lanes. As a matter of fact, the difference in safety between those roads... is about 90%. So this middle barrier will reduce the number of fatalities, serious injuries... up to almost 90%.

And in the beginning, when we start to implement this, they cost us about 30 million per saved life, instead of one billion if we had built the motorway. So this is an excellent example on when we take this idea about Vision Zero and controlling for harmful energy into reality practise solution. But of course, we can't put up middle barriers everywhere, so we also right now, I would say we have per population, one of the largest safety camera programme in the world, and we expanded it, but we don't earn any money, but we get the people to keep the

speed with this system without ticketing people. I can talk more about this if I got any question about it.

So now, around Sweden, we started with zero kilometres with this two plus one road, and now, we have more than 3000 kilometres. And we started with about 600 cameras, safety cameras, and now we have more than 3000 cameras, and we're expanding this problem.

Have you seen this book? You know Ralph Neighbour, he was really a champion for safety in the late 60s, and have dramatical impact on how we work with safety around the world, I will say. What he really did was to challenge the car industry when it comes to safety, and one of the outcomes from his kind of movement was that the US set up this special agency for traffic safety, NHTSA, they're still around, and the same thing happened actually in Sweden, we were very influenced by US in that time.

The thing is that this title now is wrong, that's a good news, and cars are not unsafe at any speed any more. If you have a modern car, and you have a head-on collision with another modern car, the car industry tells us that they will take care of the energy up to 80 kilometres. That's the good news. I don't think that the car in the late 60 could really handle this, so there is lots of knowledge, thinking implement in the cars that we have now.

But if you want higher speed than 80 kilometres, you have to do something about your... Head-on collisions, and that's why you need to start the install the middle barrier. In Sweden now, due to our programme, it's not about safety, it's about safe mobility, that's a way for us to combine both, safety and mobility, the investments that we do for our two plus one roads is not really for safety, it's for increased mobility, but sometimes we don't have the money to do this investment, therefore we have a huge programme now, to also lower the speed, because we would like to see a system now, that we have the design of the road. The weak, we can safety and the speed limits, they should go together, and we also working very much with the urban area now, so we probably will lower the urban default speed from 50 to 40 now, due to this. Now we can see how this Vision Zero starts spreading around the world. We call it, we have different word for it, and sometimes we talking about safe system, or road to zero, towards zero and so on, but you can definitely find references to this Vision Zero now in the UN global plan, decade of action plan. You will also find it in the European Union white paper for transport, they talking about close to zero, 2050. Last year, the UCD, they launched this report, zero road death and serious injuries, the World Health Organisation launched this report last year also, if you read this book, you will see lots of references to Vision Zero, and safe system approaches, and of course, now since 2014, New York have adopted Vision Zero. That's interesting, because now we see these large cities, they start to talk about Vision Zero, and in US, you know, now you have Washington, Boston, San Francisco, there are lots of big cities that actually have adopted Vision Zero.

And we can see that this also gives results, for example in Sweden now, if you take Sweden in general, we have gone from about seven fatalities, six fatalities in 1997 to less than three fatalities per hundred thousand inhabitants, and no-one really thought that that was possible because we were already when we started to implement our programme, we were one of the best in the world already in that time. And you think that there is a kind of dimension of return if you do things. But you have to do things differently, business as usual, yes, but here we have

reduced the number by more than 50 percent from being one of the top performance and even from that perspective being able to reduce the number.
In Stockholm, when we start with 2.3 fatalities per hundred thousand inhabitants, and now they are down to 0.4. In New York, who's been the latest to start to work with these things, have also started to show results.

I was asked to give some references to what I think about New Zealand, Auckland, and of course, I only been here for little bit more than one week, so it's little bit difficult for me to have a say about that. But Andrew from Transport Auckland took me out in the network a little bit, and this, I guess, is quite a typical kind of road in New Zealand, and you are allowed to drive 100 kilometres on this road, I will say that will not happen in Sweden anymore.

Probably this road would be 80 kilometres, together with safety cameras probably. It will not be middle barriered , because it is too narrow, I think, but that's the way that we should think about it. When I get into the city it strikes me when you. Definitely I think that New Zealand, but also Australia, and in US your society is much more car dependent, than we are in Sweden, and in Europe. But it's also quite interesting to see, for example, if you ask a pedestrians, if you cross a road here in the city and you just take one step, and then you get this red sign coming at you, it feels like they hate you.

And I wonder sometimes if I was an elderly person, or old people, you know. I'm quite fit, still quite fit, so I can manage to get over in time, but for older people, it might be very difficult actually. And I think we will of course, find it also in Europe, but not in the same extent, where there has been so much focus on the cars and the car society.

But the good news is that there is a very big potential for improvement, so you have lots of things you can do, I think. But the most things from a safety point of view is about controlling for harmful energy, and why do you need to do that? Because safety is not about safety, safety's about mobility, and I think, we are all now in a situation where we really need much more diverse transport systems. It's not about safety, it's about environment, it's about health, we would like to get people more on bicycles, and become cyclist, and walking, because that's good for the health, and it's good from an environment point of view, but safety is a barrier for that to happen.

As a parent, I don't want to put my kids out in inherently unsafe system. And we can't manage our system through data, like fatalities, and serious injuries, in that situation, because the parents know that this is not a safe system, so we have to think outside the box, and we can't just chase the black spot, that we call fatalities and serious injuries, because sometimes, you have an unsafe system, but you have zero fatalities, and serious injuries. But everything is about safe mobility, so you have to have a much broader perspective on it, but of course, Vision Zero as a kind of safety culture phenomena is very advanced, it's very advanced you know, and it pushes for huge changes, so to make that happen you have to be brave. And you have to have lots of discussions with your communities about these things.

In our experience, in Sweden, one way to do that is to start with a demonstration project to show how it works, and have a dialogue with all the stakeholders, that is involved in it. But my

experience from Sweden also, is that it's not really the politicians that have been the problem, the public has not really been a big problem, it's us as professionals actually.

There's lots of things that we used to do in a way, and we get used to it. We use sometimes, standards manual that was developed in 1930, 1940 and I think the whole road engineering community is quite conservative.

If you compare with, for example, the car industry - they are doing new car models every two to five years, something like that, but here sometimes, we work with things that was fit with the car society in the 50s. So, we have to change lots of these things to get it to happen, but the good thing with this is that if you start to work systematically to reduce your death, and serious injuries, that will contribute to safe mobility, because that is what we actually would like to achieve. So I think I stop there, and then, we can have a chat in the panel, thank you.

- [Dr. Lester Levy]
Thanks for that Matts. Matts, that is definitely a narrative of possibility, I think that we do have a problem in New Zealand that we are hardwired to accept convenience over safety, so safety must trump convenience.

I'm going to ask Andrew Allen, Chief Transport Operator Officer from Auckland Transport to join us. Caroline Perry, National Director of Brake, please join us as well, and Dr. Rhys Jones, a public health medicine specialist, and senior lecturer in Maori health from the University of Auckland to join us as well.

So we'll constitute the panel, I'll lead off, we'll have panel discussion for the next 20 minutes, and then we'll move to questions from the audience.

I was pretty struck by some of the interventions, particularly, Andrew, the one relating to speed, if we lower speed limits on the road network, won't that just add to congestion, the very thing that we're just trying to tackle, your views please.

- [Andrew Allen]

I think, it's probably very fair to say that lower speeds are certainly caused by congestion, but the converse is seldom true. I don't believe that lowered speeds, as of right, cause congestion on our networks, I don't believe that is the case, to be honest. In fact, there are some examples where, I'll illustrate one of those, we have now for the last four or five years been rolling out 40K speed zone, around schools, that's a... great... initiative that's delivered us 37 percent reduction in accidents involving children, walking or cycling, to and from schools. And really it's had little, or no impact on congestion whatsoever. I think congestion, to be honest, is caused by a number of factors. The capacity of the network to take the vehicles, the top of intersection treatments that you have on your network. So those factors I believe are the ones that contribute primarily to our congestion, speed is seldom a factor that we consider in terms of creating, or generating more congestion. I think perhaps we'll leave it at that.

- [Dr. Lester Levy]
Thank you, Matts did allude to the real elephant in the room when it comes to congestion, and that is car dependency, so this is a very car dependent culture, and it's like a narcotic. we are addicted, we're going to talk now, a little bit, I think, with Rhys and Caroline, if we may. Vision Zero isn't just about changing road design, so can you talk a little bit about the challenges of changing people's attitudes to road safety.

- [Caroline Perry]
So, from our point of view, yes, we know that changing people's attitudes, and behaviours towards road safety is a really big challenge, and there's a lot of research that has been done from transport psychologists, around that particular topic, which says that there are so many factors, which affect our attitudes, and behaviours to things, from peer pressure, the way we were brought up, our socio-economic factors, and health, and well-being at any particular moment in time, which can affect our attitude to something, or our behaviour at that particular time, there are a lot of factors which affect the way we behave, and therefore, it's a real challenge to change people's attitudes, but that's not to say that we shouldn't still be trying to raise awareness of what the road safety issues are, what the causes are behind them, and what changes we... need to make individually, and collectively in relation to road safety to save lives on roads, because we all have a responsibility, and we can't be complacent.

- [Dr. Lester Levy]

Thank you. Rhys.

- [Dr. Rhys Jones]
Thanks Lester. I would say, and this was actually broadened a quite sharp focus for me personally, the other day. The importance of not just focusing on road design, but also the need to kind of, transform... Attitudes, and at a broader level, sort of, culture around this, because I was biking along, physically separated cycle lane, not far from here, and a person driving a vehicle turned directly across my path, even though I thought I was clearly visible. Clearly not. And, so, even though the road design was great, you know, something about the culture, something about perhaps, not expecting to see cyclists around there, because they're relatively few. Not looking out for people, other than in vehicles. So, those sorts of things are incredibly important. And I think, coming at it from a public health perspective, as I do, I think about things like... You know, we've had a long experience in public health with trying to change people's behaviours around certain types of health behaviours, like smoking for example, and we've worked out eventually that hammering people with messages to stop smoking, and trying to educate people around this is really not working, and what we need to do is change environments, and so once we get smoke free environments, once we get higher taxes on cigarettes, we get restrictions on advertising, and sales of tobacco, then we start seeing the improvements, and I think there's this huge parallels with the transport environment, that we need to focus on, not just the physical environment, but also the social ques, the social norms... that people have, so we can get that change in culture, even though that sounds easy rolling off the tongue, but is a long term sort of process.

- [Dr. Lester Levy]
But we won't get it, unless we make a good start, and be intentional, but that's a good segue, thank you Rhys, for my next question, which is for Matts, what is the role of good urban design in helping to deliver Vision Zero.

- [Dr. Matts Belin]
Well, I think it's crucial to make it happen, as you said, sometimes it can be very difficult to change the behaviour, and that sort of thing, and... urban design ... basically it's about to... influence the behaviour, but through a more, changing your environment, and... Let me also connect living to your question around... Congestion, I think it's the opposite actually, I think if we make a safe urban environment, then that will itself promote more cyclists, or walking,... So that will add more public transport, and that itself will have a good impact on congestion. So I think it's the opposite actually.

- [Dr. Lester Levy]
Sometimes, particularly from this part of the world, we look at the Scandinavian countries and they seem very progressive, and they seem to be able to make steps that we don't easily make, is there something particular in the culture of the Scandinavian people that we could learn from. Is there a particular gene for responsibility?

- [Dr. Matts Belin]
I got that question, you know, and I think yeah, we are very innovative... In Scandinavia, we like to do things a different way, we have a small country,... but that's the same in New Zealand. So, we have lots of discussion among different stakeholders, that sort of thing, and that, I think, creates the context of the being in the front... of this sort of thing, but I don't think really that there are different individuals, I think we are quite... similar all over the world actually.

- [Dr. Lester Levy]
Well that gives great hope for us. Andrew, there was a gentle, or not so gentle, challenge from Matts earlier, about your profession, transport engineers, I think if I was to interpret what he said is that you're hardwired to orthodoxy, and old fashioned textbooks, is that correct?

- [Andrew Allen]
I'd say probably it would be correct, but we are evolving, I think we are evolving, and I think there is a lot that we can learn from what else is happening around the world, and I think we're in a place and time right now with technology, also offers us some really fantastic solutions, I think one of the slides that you had up there was about the speed hump, that kind of is dynamic, so it's there, or it isn't there, depending on your behaviour. That sort of stuff, five years ago, just wasn't even thought of, so I think, as engineers, we've got to be adaptive, and we've got to be innovative, and we've got to embrace some of those solutions that are offered to us by technology and the innovations.

- [Dr. Lester Levy]
And if we were to make a significant shift in our paradigm about road safety, we probably need to spend more on road safety. What do you think we can afford not to do.

- [Andrew Allen]
Well, I don't think it's even a question of what we can afford not to do, to be honest, we can't afford not to focus on road safety, that's my view on it, certainly, I think, the mayor...

- [Dr. Lester Levy]
And that's good and we accept that, but where the rubber hits the road, and where the budgets are allocated, and competed over, seriously what is it that we could afford not to do, because we will face this choice, and quite soon.

- [Andrew Allen]
Well, I suppose there's probably two dimensions to that, in terms of answering that question. I think the one that we need to just talk about quickly first, is the fact that when we look at the statistics, and the mayor alluded to them, last year's 656 death and serious injuries accidents on our network, that's unacceptable, and that unfortunately, comes at a cost to communities, and people's lives, but it also comes at a financial cost, so that costs the Auckland economy 1,3 billion dollars in tempted social costs. So when you talk about, can we afford to invest in road safety, I think the answer is pretty obvious, you can't afford not to, because we're actually investing already.

- [Dr. Lester Levy]
But of course, we do see our colleagues from the New Zealand police here, and we welcome you, you do a great job, but we need to all do this together, it's a multi-agency approach, and often the budgets, and the approaches, and the responsibilities are quite segregated, and that's something for us to think more about. We'll go back to a recent, Caroline, you know, we spoken a lot about roads, and we've spoken a lot about design, and a lot of other factors, But some people think it is the people, not the road, to blame for this problem. Speeding, drink driving, dangerous driving, how can any of those be the fault of anything, other than the people themselves? That's a question, not a statement.

- [Dr. Rhys Jones]
I mean that's, as you say, it's a sort of a really common kind of discourse around, that's really about individual responsibility, and I think Matts refer to that in his talk, and for me, it comes from this sort of, near liberal ideology that seems to be permeating everywhere in our society. And which actually deflects attention from a lot of the structural, and systemic, and environmental factors that, as I've already said, I think we need to be focusing on, because that's actually what works to change things. If we design a system that relies on people not making mistakes, then we're destined to fail, that's a failed system, and we need to be designing, You just need to look at the airline industry, and examples like that, that designed things so that people can make mistakes, but they don't have fatal, or very serious consequences, hopefully, most of the time. Those are the sorts of things we need to be looking to, the other thing I would say about an individual responsibility focus is that it actually ends up increasing inequalities, because those people that are relatively privileged, and are able to take

up messages are able to have the resources to make those changes, will benefit from those interventions, whereas those who are struggling, those who don't have the privilege, and the opportunities to do that, will end up suffering, and not being able to make the changes. So I think an approach that relies on individuals taking responsibility as sort of the sole focus is... wrong, and just create more problems.

- [Dr. Lester Levy]
Okay, Caroline.

- [Caroline Perry]
I would agree with Rhys on a lot of his points there too. As Matts said in his presentation that difference with Vision Zero is that shared responsibility, and the fact that when something does happen, whilst it may be, have been caused by the road user is actually going back, and looking at, is there something within the design in the system, that we could change, and improve to mitigate something like that happening in future, prevent it from happening in future. We work with families, who've been bereft in road crashes, and we see the devastating consequences of those crashes for families. It's about what can we do to prevent these things happening in future, and we know in terms of, individual responsibility that that isn't everything, when it comes down to the system, and the transport design that we have. But having said that, we all as road users, and as people make the conscious decisions. So we still all have a responsibility when we're using roads to do everything we can, to keep ourselves and others safe, because we're constantly making decisions, and choices so, choosing if you get behind the wheel after having drunk alcohol, or you use your mobile phone at the wheel, that is a conscious decision, that's not making a mistake, that's a decision you've taken.

- [Dr. Lester Levy]
Thank you. Matts, you spoke a lot about, what I would interpret as self-leavers, and subtle, and, kind of, finessed approach, to road safety and Vision Zero. But you did talk about cameras a bit, but you never spoke about enforcement, where does enforcement fit into Vision Zero, because you obviously don't have the cameras up there for no purpose.

- [Dr. Matts Belin]
Well enforcement is extremely important, especially in the short run, because we don't have a safe system, so we still have a system that we are very dependent on the people doing the right thing all the time, so police is important from that perspective, but what we try to do, in a more... long run, we try to creating something a little bit more sustainable, and of course, we always think, need the police, but we try to,... I had a one example, when it comes to drink, and driving for example, that... We can really solve this problem, with technology, but the same thing when it comes to speed, you know. But we will not start with us as individuals, we don't start with us. In Sweden, we call a typical Swedish person, "Sanson", that's a very common name. We will not start with Sanson, we will start with organisations, we will start with those, who professional using this system, so for example now... Municipalities, they are responsible for... school transport in Sweden, and 90 percent of all bus, school transport buses in Sweden, they have installed alcolocks, because the municipalities now, they procure this kind of things, so if the transport companies would like to make business with the municipality, they have to install this kind of technology, and of course, we don't have a lot of drunk bus drivers, that driving around with our kids, but this is not, the focus is really to start people man things, so

this is the first step, and they will probably pay a little bit more for this kind of technology, but when we see this things spreading, then the price for this technology will go down. So I think that the organisations within a society has a great... Extremely important to make this happen, so in the Swedish Transport Administration for example, we have travel policies, so if you are the manager, and you have a car on duty, that car will have alcolock, It will have intelligent speeder-type-tation system, and so on. So we really, we recognise that we have problems with behaviours and that sort of thing, but we would like in the long run, to solve it with technology, but before we have achieved all these things, we still are, very dependent on enforcement. Of course.

- [Dr. Lester Levy]
So we already down to the last couple of minutes, so I'm going to ask each panellist just to, we'll start with Rhys, if you had a magic wand, and it came to road safety for each of you, what are the first two things, very briefly, that you would wish for with your magic wand, for road safety.

- [Dr. Rhys Jones]
Wow, that's a tricky one. Can I say Vision Zero, is that.

- [Dr. Lester Levy]
Something very brief, perfect, what else?

- [Dr. Rhys Jones]
And I think, when I say Vision Zero, I'd see that at a policy level, but also that being socialised within our culture, because we have a problematic relationship with motor cars, and transport environment in general. So, I think changing that car culture.

- [Dr. Lester Levy]
Caroline, your magic wand, your wish?

- [Caroline Perry]
Yes, Vision Zero, as well, from my point of view.

- [Dr. Lester Levy]
Look what you've done to us, Matts.

- [Caroline Perry]
Yeah definitely Vision Zero, but I would say, that one key part of that, more 30 Kilometre an hour limits in urban centres, and around schools, lower speed limits.

- [Dr. Lester Levy]
Andrew, you're the man who could answer that second question.

- [Andrew Allen]
I'm not going to break the trend. I think Vision Zero is a great aspiration, and that's where we need to head. I would love to see a far less car dependent society, far less car dependent

Auckland, you know, more reliance on public transport, and on active modes, I think that would stand us in really good stead moving forward.

- [Dr. Lester Levy]
Perfect and we've got one minute and 20 seconds to have last word on the panel discussion. Matts.

- [Dr. Matts Belin]
From my perspective now, coming from Sweden and see... I have been involved in this process from the beginning, and 20 years with this implementation of Sweden, and sometimes when I talk about this, it sounds like a very smooth easy process, everyone is happy, and doing these things. But that has not been the case you know, there are lots of conflicts, there are lots of things that we need to solve through this process. The good things now is that... we are lots of... different countries, different jurisdictions have taken this up, and start to do things, so we have lots to learn from each other, I would say, so this is an excellent... topic area for international collaboration, because we are doing things that is very new now, and we should not reinvent the wheel on all this places now, we really need to collaborate, I think I stop with that, thank you.

- [Dr. Lester Levy]
Thank you very much, thank you. So we'll ask the panel to remain while we got through the question and answer session with the audience, I'll just make a point about paradigms and how we think. I was in Amsterdam just recently, and as you know there's a massive bike culture there, just amazing, and I was in the cab as it happened, and we were waiting, and all these bikes were just going by, and we just had to wait, and wait, and wait, and I said to the cab driver, "does this bother you, waiting so long for all these people on their bikes?", and he looked around at me, sort of semi-dismissively, and he said, "not as much as if they were all in cars." And I thought, you know, massively mature mindset. That's something we could learn a lot from. So we're going to open the floor to questions. So we have a question over there. If you could keep your questions brief please, that would be appreciated.

- [Audience Member]
I just wanted to raise one of the issues, as sort of, paradoxical, where we fix a piece of rural road, rural highway by taking out the wriggly bits, and making it straight, and then people drive at even greater speed, and have even more gory accidents. So, life is full of these, sort of, strange paradoxes, but this is one, I have noticed particularly with our urban highways, sorry, rural highways. There seems to be no ultimate solution, because people will just take advantage of the improved road to go at an even greater pace.

- [Dr. Lester Levy]
Andrew.

- [Andrew Allen]
Thank you for that. I suppose probably two statements there, I think if you're going to straighten out your roads, and encourage higher speeds, then they need to be designed in a way that's more forgiving, and I think some of the slides that were... I'm not sure that, oh, it is working. I think some of the slides that were up earlier, probably illustrate the sort of, measures

that can be put in place to make higher speeds more acceptable, and more forgiving, so that's the separation, that's the barriers, and perhaps the run off road protection, so that if you fall asleep at the wheel, you don't end up driving into a river, or off a ravine, that sort of thing. I think it's possible... To make straighter rural roads... Safer, and have higher speeds that are acceptable, but equally, I think a lot of our rural roads are relatively well self-explaining to your point about the windy bits... The conundrum, we've got in Auckland, and probably, New Zealand for that matter, is we have a habit of putting 100k speed restrictions onto those windy roads, and we saw the Riverhead, Coatesville example up here earlier. We are at a great point in time now, where we actually got the ability to make changes in that space, so we can accept that those roads don't need to be straightened out, but we do need a lower speed environment in those situations, and we do need environment that's more forgiving. To me those road are actually self-explaining, their Geometrics and their design dictate and lend itself to a driver understanding that you need to drive slower.

- [Dr. Lester Levy]
Perfect, and we do have a lot of rural roads in Auckland. Do you have a question?, thank you very much.

- [Audience Member]
I haven't heard you mention anything about older people, now I am now an older person, and I get the bus when I can, but I haven't got a bus shelter, so imagine what it would've been like yesterday, where I'm living,... we had 25 millimetres of rain,... or hail, still around three hours later, so without a bus shelter up there, it is very difficult. Now otherwise, when we come into town, where can we park? My husband was unable to walk very far at all, in fact, he became completely unable, but we had used to carry a little wheelchair in the back of the car, and so he would get there, and use the wheelchair, but those places are getting fewer and fewer, so that would limit him all together from getting anywhere, unless he can park... somewhere close. He's no longer with me, so that's alright. I haven't got that problem, but please, do consider, because people are getting and older here, we're not all able to get on bikes, I can get on a bike, but I'm not very wanting to go anywhere particularly, just for pleasure.

- [Dr. Lester Levy]
Thank you, Matts, you did touch on, you know, you thought that crossing the road if you were older, that could have been quite difficult, how do we build in the right environment for our seniors, of which there going to be more, and more in the next 20 years, in Auckland. Those aged over 65 are going to double, those aged over 75 are going to double. So 65 going to go from 220 to 440 thousand, it's a lot of people, we really need to keep our seniors in mind. How do we get Vision Zero to be meaningful for our senior citizens?

- [Dr. Matts Belin]
It think in general, if we plan, and put the vulnerable road users on the top on our agenda, that will be important for all of us, so we have to change the way that we give priority to things, I think,... so that might be one of that.

- [Dr. Lester Levy]
I guess it's not happening quick enough, but intelligent mobility is going to be one of the most liberating... New technology applications for older people. It's just going to give them amazing

opportunities for transport, and effective transport, and transport right to their door. That is just a few years away, but not too far. We need to ensure that we have our most vulnerable citizens at the top of the list, when we think about road safety. Do we have the next question, please, Just over there, thank you very much.

- [Audience Member]
Last week, at the Institute Traffic conference in Nelson, Matts spoke, and all the safety partners were given some information on the highest mortality rate in New Zealand currently, and the worst issue at the moment, one in four fatalities involve trucks, now they don't necessarily involve the driver, and we should be thinking, and I hope that the panel can perhaps discuss that, how... the mass component of travel... is affecting our fatality rates.

- [Dr. Lester Levy]
Who'd like to take that one on? No-one jumping to their feet, right at the moment, but we'll give them a few seconds.

- [Andrew Allen]
I suppose one of the comments, it is John out there, isn't it, yeah. I suppose one of the comments I'd make is certainly, and I don't know the detail around all of those statistics, and I wasn't at the conference, but we do certainly have an issue in terms of exposure for cyclists in that space, in terms of being pulled under wheels, and trucks, and not having the side protection, and I think that there's quite a bit of work that's been done at the moment, at a national level to try, and encourage the freight industry, and the truckies to come to the party in terms of side protection on trucks to, at least, provide some sort of benefit for the cycle exposure, the cyclist risk exposure that we've got at the moment.

- [Dr. Lester Levy]
Very good, further questions, thank you.

- [Audience Member]
Hi, I'm just interested to know what the panel think that automated vehicles will impact road safety in the future, and what planning is being done around that.

- [Dr. Lester Levy]
Matts.

- [Dr. Matts Belin]
Yeah, I think the safety community in general, they are quite sceptical about it, but from a Vision Zero point of view, we think that there are really a chance now, and we need to take advantage of all this technology. It's not all about, this automated self-driving cars, but it’s all the technology that will be needed to make that happen,... and those technology will be very beneficial from a safety point-of-view , we have lane departure system, auto brake systems, lots of these kind of technology, so we think that from a safety point-of-view, it will be a great benefit with things that happen, and it's amazing of how quick it goes, and how much momentum, it is in the whole discussion about automated driving, so for example, in Sweden now, in Gothenburg, I think this year actually, we will have a large scale demonstration project with self-driving cars. But it's not only about self-driving car, it's about the whole system,

because you have to have an infrastructure that provides... the right environment for this self-driving cars. In short, we think that there is a really an opportunity here from a safety point-of-view.

- [Dr. Lester Levy]
So, we've got a question just over there, then sir you can take your hand down, you'll be next, and then, you'll be after that, with the white shirt. So, could we have your question, person with the microphone? Where is that? Ah, there you are.

- [Audience Member]
Dr. Belin, thank you for a very excellent address, and just before I ask a question, I did notice in one of your slides of hazards, that you had elk, and I always remember when I was driving home in Viman, one night from Sonna, and I had an elk run right out in front of the road, in front of me, out of the mist, and I nearly collected it, I just managed to swerve and avoid, my question is, I was delighted, well, I'm delighted that you mentioned roundabouts, and I'm going to say that it's time that Auckland Transport took note, because in other cities, or other towns, throughout New Zealand, I have seen lots of roundabouts, but Auckland Transport, seem to be very adverse to them, and they like to use traffic lights, and the classic example is construction at the moment, which they would be well aware of, down on Tamaki Drive, Ngapipi Road when the submission, and everyone wanted roundabout, you went for traffic lights, and they cause, traffic lights cause more problems, and I see roundabouts seem to ensure the traffic flows steadily, less accidents, and less problems, and I think you've made a very important point tonight.

- [Dr. Lester Levy]
Andrew.

- [Audience Member]
Auckland Transport, take note.

- [Andrew Allen]
Thank you, and duly noted obviously. that's probably not worth getting into a debate about the benefits, the pros and cons between roundabouts, and signalised intersections, but it is probably fair to say that we are focused on looking at roundabouts as a solution in appropriate locations, but roundabouts aren't necessarily the right solution in every situation, and it's certainly my firm opinion, that when it comes to Tamaki Drive, a roundabout would've been a very difficult solution to implement, in fact, probably, near on impossible to implement in that very, and specific location. Especially if we were going to cater for the serious problem that we've got at that intersection, which is cycle safety, because the footprint, and the space that we have available to us without extensive reclamation just doesn't exist to be able to put a safety system in, or system that will cater, like we saw in some of the images up there, safely to cyclists and pedestrians, so I do note your point, I take it on board, and we are looking at using roundabouts more often, it's part of how we're going to address the safety challenge in front of us.

- [Dr. Lester Levy]
Thank you, sir, you've got the microphone.

- [Audience Member]
Thank you for your address, and congratulations on the reduction... in Sweden, of road deaths. What was our comparative per hundred thousand? This is a question for you, What is our comparative per hundred thousand right in Auckland, and in New Zealand to act as a kick up the arse to get us to compete with Stockholm, and Sweden.

- [Dr. Matts Belin]
I don't know.

- [Andrew Allen]
The Auckland statistic, I believe is three. Three per hundred thousand.

- [Audience Member]
And New Zealand wide?

- [Andrew Allen]
Unfortunately, I don't know the statistic for New Zealand wide.

- [Caroline Perry]
I believe at the moment, it's around seven, currently. 7.7 at the moment, New Zealand wide.

- [Audience Member]
Thank you.

- [Dr. Lester Levy]
The next question. So we'll just go over there. If you could just take the microphone just behind you, thank you.

- [Audience Member]
Thank you, just getting back to attitudes. What I've always noticed traffic engineers emphasise this new, to route change the routing will decrease the travel time by so many minutes, and us motorists just interpret that we're getting there faster, and I think that's just the wrong emphasis, I think perhaps, I challenge the traffic engineers, emphasise this change will decrease the accident rate by so much.

- [Dr. Lester Levy]
Nice point, very good. I don't think that requires an answer, it was an answer in itself. Very good point, we'll take that on board. The next question, I think, was just over here. Yes, are you able to, oh sorry, we'll take that one first. Just over here, in this third, second row, thank you.

- [Audience Member]
Thanks very much, I want to actually acknowledge the point that Rhys made, he was talking about the way in which we addressed the issue of tobacco, and what didn't work, and what did, and I remember reading an article about our cars, the new tobacco, and we've talked a lot about the elephant in the room, from a Auckland Transport perspective, a part from the nudges

we could get by having better public transport, and cycle safety, what are we really doing about having fewer people using cars.

- [Dr. Lester Levy]
A lot. In fact, if you have a look at the public transport statistics, they are changing very dramatically. It just comes off a very low base, so without going through all the details, you take for example,... Since we've introduced electric trains, we have had very significant success in massive uplift in patronage, in fact, we're about four and a half years ahead of our business case, and we've just signed up for an additional set of 15 trains, that's 45 cars, that's in advance of the CRL, but I think it's realistic to say that Auckland has very limited, currently very limited rapid transit, we've got the train, and we've got the northern bus way. So, there's a number of other elements to CRL, but that's time in the building. There's AMETI, which is progressing at glacial pace, we would like to see that funded much more quickly, because, it's a huge solution there, but it's funded very incrementally, of course, with the new government, Lightrail, which we've been a proponent of, it looks extremely likely. The north-western bus way, or perhaps some other mode out there, so we are trying to develop rapid transit, because we know for a fact that where there's rapid transit, people use it very much, and a frequent network around that, and then a connector system, it takes time to develop, but we are looking to have a real suite of modal options, but modal options are insufficient in themselves to get the massive problem of car dependency addressed, and that's an attitudinal issue, and that's something we have to take a different approach to. We've actually got a chance for perhaps, one or two last questions, we've got one over here, and then you, sir, then we'll be done.

- [Audience Member]
Thank you for the great presentation, it was very... Eye-opening, it is one of those, these slides you have shown, the two plus one lanes with median barrier in the middle, what is the speed environment, and where would you recommend that to be implemented.

- [Dr. Matts Belin]
We used to have quite a large network with 90 kilometres,... when we installed this middle barrier, we were actually able to increase the speed to 100 kilometres, so these roads, most of them have a 100 kilometres. So it works very well from a safety perspective up to 100 kilometres, and if you don't have this middle barrier, we will have 80 kilometres instead.

- [Dr. Lester Levy]
We're down to the last question, thank you.

- [Audience Member]
Thank you very much for the presentation but towards the end of the presentation, Matts, you mentioned that demonstration projects were probably the way to get the ball rolling, I'd appreciate hearing from you, perhaps what was a very successful demonstration project in Sweden, in Stockholm, or somewhere else in the world, or you might want to take on the big challenge of saying, what do you think might be a good demonstration project in New Zealand, after your brief experience here.

- [Dr. Matts Belin]

For us, it was important to show that this is not rocket science, so we actually built, you know, we are part of the European Union, so we have rolling... Chairman of the European Union. So when we were in charge for European Union, we decided to do a lot of things, and we organised a meeting with all politicians from Europe, and so on, and then, we did some demonstration project both, in the urban area and the rural area, and at that time, we also had Saab, you know, the car, the Saab, they provide car with alcolocks, and that sort of thing, because we wanted to show both the public, of course, but also, all these politicians that this is not rocket science, we have lots of good solution, that we can start to implement, and I think that was a very important demonstration project, actually, and we work very systematically with these kind of thing, to show how it works, and so on, so I think that is very good to make things happen.

- [Dr. Lester Levy]
Thank you very much for your questions, sorry if we don't have a chance to take all of them, so before we close, we are going to ask Pippa Coom chair of the Waitematā local board to make a vote of thanks. Pippa, thank you.

- [Pippa Coom]
Kudo everybody, and thank you Lester for the invite to close the Auckland Conversations this evening, and to give the vote of thanks.

I am really proud to be chair of the Waitematā local board, the first local board to adopt Vision Zero as a target in our local board plan. And I'd would really like to acknowledge the road safety campaigners, and advocates, who've been working to create safer streets, and first brought the possibility of Vision Zero to New Zealand a few years ago, and it's really directly influenced my thinking, and I found it very heartening to hear Lester say that Auckland Transport is going through a review of their road safety approach.

This is really a positive sign, and I think there are many positive signs of change is coming, not just at Auckland Transport, but at the government level. I met Dr. Belin at Traffinz last week, where he was the keynote speaker, and acknowledgements to the deputy chair of Traffinz, it's the road safety conference, it's held annually, and organised by the local authority, Traffic Institute of New Zealand, that was held in Nelson last week, and particularly the NZTA officials there, really gave us a teaser of what we can expect from the new government that wants to make a difference , and the new Minister of Transport, Phil Twyford, has asked for safety and Vision Zero to be a part of a new transport action plan.

And so, I just think this amazingly perfect time that Matts is here in New Zealand, so I'd really like to congratulate whoever made that happen. I think the stars are aligning. What I really take from Matts' presentation, for his very straight up presentation, delivered with a very special Scandinavian dry sense of humour. I think it's really easy to understand, and we, the politicians, the planners, engineers, leaders in this room, police enforcement, good to see you here as well, I really think the whole road safety community, we know what we have to do, and as we heard from Matts, we have to be brave. Change can be difficult, and we will be in the firing line, and Auckland Transport certainly experiencing that quite a lot at the moment, as we go through huge change in Auckland, but safe mobility for everyone, I'm convinced will bring social, environmental, and economic benefits for our communities. Did I mention health there as well,

Rhys? Absolutely. So just before I do get to the thanks, I would just like to mention that this Sunday is the world day of remembrance for road crash victims, and brake, with Caroline Perry, it's great that Caroline is on the panel, is organising at Silo Park at three pm, there's a stand for zero, so if you'd like to come along, and be a part of giant zero that we're going to create down on Silo park, we invite you all to come along, and you can find the event details on Facebook. I am sure everyone here has been touched by, in some way by a crash, and the mayor made his own personal... reference to that, so I just wanted to say, I thought to myself, I am not going to do this so that I can't say it properly, but I will be there, standing for my dad, who was exactly the same age I am, when he was killed 20 years ago in a crash that would not have happened if a safe system approach incorporating Vision Zero was in place, but we will do that remembering on Sunday, right now I really would like to end in a positive way with a big homai te pakipaki for all the people that we must thank for this evening, and of course, our keynote speaker, our international guest, who I've really been delighted to hear from Matts, Dr. Belin this week, I think this is the fourth time, I've heard him present, and every time, I get something from it.

So, thank you Dr. Belin for your presentation, we're really fortunate to have you in New Zealand. I'd like to thank the panellists, Andrew Allen, you're basing yourself a change at the organisation, that Lester and the new CEO bringing along. Caroline Perry, it's great to work with you on road safety, and Dr. Rhys Jones, I think this bringing together, health and transport is so important, so thank you to our panellists for taking part in the discussion, of course, thanks to our MC, Mr. Levy, I don't know how you do it, with wearing so many hats, but you are formidable with your work output. Thanks to our very busy mayor, Mayor Goff, for opening the conversation, and he did stay for the whole of Matts presentation, so that's just fantastic, and thank you for the organisers of Auckland Conversations, to the sponsors, and supporters, I know a huge amount of work goes into putting on these events, and we're really fortunate that we can come together to hear from amazing speakers from around the world. So most importantly, I would like to thank the audience, thank all of you for coming along this evening, this is a wrap for Auckland Conversations, not forever, just a wrap for 2017.

I should also mention, thanks to those, who're watching live, and when you go unto twitter, and you see all the tweets of Auckland Conversations hashtag, you can get the sense that we do have a much wider audience that joins us for these conversations, not just everyone who's in the room. That is it for this evening, and I do welcome you back for next year for Auckland Conversations, the first event will be on the 28th of February, so if you could join me in a big round of applause for everybody, who's taken a part in this evening, and thanks.