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Episode two

TRANSCRIPT

Infrastructure for a better future

Congestion charging in Stockholm

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Please note: the transcript has been edited to make reading as easy as possible.

Introduction: Welcome to the Te Waihanga 'Infrastructure for a Better Future' podcast. A series where we talk to experts both from here and overseas about the infrastructure challenges we are facing. The episodes focus on the key areas of Rautaki Hanganga o Aotearoa, New Zealand's infrastructure strategy. Find out more about the strategy at www.**strategy.tewaihanga**.govt.nz.

Geoff Cooper: Well, we're here to talk about how to spend less time queuing on urban asphalt and how congestion charging might help us do that. Of course, the idea of congestion charging is nothing new. It was first proposed in 1954 by Nobel laureate William Vickery, who suggested that a time-of-day charge would, among other things, help move people out of peak congestion periods and make better use of the network during uncongested times. Researchers that came after argued that it could also help eliminate low-value travel, move people onto public transportation, incentivise carpooling, reduce carbon emissions and delay costly investment that we would otherwise need to build for the peak.

To me, congestion charging has forced us to grapple with this idea that how we pay for transportation infrastructure can be as much – or more important – than how much we pay. But, despite a strong technical consensus on the issue almost 70 years later, just a handful of cities have implemented congestion charging. The list of cities that have tried seems to get longer and New Zealand forms part of this list. Te Waihanga, the New Zealand Infrastructure Commission, recently listed congestion charging as one of the key shifts in Rautaki Hanganga o Aotearoa, the New Zealand Infrastructure Strategy. And the Commission follows a long line of studies that have recommended the same, the most recent of which is known as 'The Congestion Question', a study which was a joint effort by numerous institutions including Auckland Transport, Auckland Council, NZTA (Waka Kotahi NZ Transport Agency), MOT (Ministry of Transport), the New Zealand Treasury and the State Services Commission.

So, we know that implementation is hard, which brings us to Stockholm. Stockholm introduced congestion charging in 2007 and was one of the

first cities to do so. And it's a fascinating story of changing public perceptions, where as far as I can tell, success was far from inevitable. In 2005, a year before a city trial, the head of the congestion charging office famously laid down his cards, albeit in secret, saying that congestion charging is quote *"the most expensive way ever devised to commit political suicide"* end quote. He had good reason, in the months before the trial, just 3% of all newspaper articles on the topic were positive, and two-thirds of the public were not in favour. After congestion charging was introduced, public sentiment changed significantly. The policy had worked almost immediately, traffic across the cordon fell by around 20% and congestion reduced by some 30% to 50%. William Vickery would have given a standing ovation. A day after the policy was introduced, the headline on the front page of the city newspaper read, *"One in every four cars disappeared"*, and a picture of a heavily congested road the day before the policy and a free flowing one the day after. The percentage of newspaper articles with a positive angle increased to 42%. Six years after the charge was introduced, public approval strengthened to some 72%. It is quite a dizzying turnaround in public sentiment. And to help us understand this, we're incredibly fortunate to have Gustaf Landahl, who has been the Head of Department at the city of Stockholm for some 27 years. There is perhaps no one better placed to speak to Stockholm's experience on congestion charging. And I believe we have nabbed him on his very last week before retirement. So, Gustaf, let me just say it's a real pleasure to have you here and thanks for joining us.

Gustaf Landahl: Thank you for inviting me.

Geoff Cooper: Just a first question that I'll just put it straight to you. How did Stockholm manage to pull this off?

Gustaf Landahl: Well, I've seen that many cities have discussed it, as you said. Many cities have also had referendums about introducing it, like Edinburgh. They had referendum – should we introduce congestion charging – and, of course, people are afraid of change, and they voted no. But we did it the other way around. We tried it first and the trial was successful. First of all, it worked technically, very well. We had the optical license plate recognition system, which optically checked who drove through and sent that information to the number plate agency who could identify the car owner. And then that went to the Internal Revenue Service, who made a tax decision. This went very technically well. In the trial, we also had transceivers on the cars to see if that was necessary but these were obsolete after the trial. But anyway, the technical part went very well. Of course, in new techniques there can be difficulties, but this worked very well from day one. So, people were positive with that, it was easy. All the information beforehand meant it also worked very well and people felt secure with it.

Second of all, there were some reinforcements of the public transport system. Because we thought if people don't use their cars they need to go more by public transport. So, these were in place from the beginning of the trial, as a way of supporting the trial. And then we also introduced some more park and ride facilities, which weren't used as much, but they also helped a bit. So technically, it worked well, it was well prepared, and those who drove a car, they could drive much quicker. So, they became positive as well because the congestion went down. Those who went by public transport could go quicker with the buses, those who lived in the inner city had less noise, better air quality, so they felt the improvements as well. But as you said, before that the opinion in the polls was negative. If we had voted and had that – our referendums are not decisive, they are like recommendations for the policies – but if they had followed the recommendation and had a referendum before, we would never have introduced it. This referendum was in conjunction with the normal annual or the fourth-year voting process, where we go vote for parliament for the region and for the local municipality. The party that won the election on the local level was the Conservatives with a coalition. They were against congestion taxation. They had said they didn't want this and they went out and discussed that before the election. So, the referendum after the trial said we want to keep this in place – people wanted to continue with congestion taxation. The party that won the majority in the local parliament in the city, they were against it. So, it took them like a week – 10 days – to figure out if they should stick to what they had gone out saying before the elections or should they follow the referendum. And they decided to follow the referendum.

Geoff Cooper: Was it a surprising result? I think that the number was 54% in favour after the trial. Was that somewhat of a surprise?

Gustaf Landahl: For them, maybe it was a surprise. But during the trial, of course, there were polls done all the time by these institutes that check people's feelings. And we saw that it was very close between the two different views. We didn't know really what the outcome would be. It was a narrow referendum for continuing this, but we couldn't know of course. There were two things: One is people are often very awkward to change. It's like when you work with city planning, people don't want you to build something. Of course, we need more residential areas, but not in my backyard – NIMBY they call that – 'not in my backyard'. People don't want change, and people are afraid of change. But if you try something in a pilot project first, this was a full-scale pilot project, so it costs a lot, but it worked as well. If you trial it first and then check afterwards, I think people have a better possibility to really understand what it is and understand both the virtues and the problems. In this case, when it worked very well technically and the effects are very positive, in many ways, people did accept it.

Geoff Cooper: And the effects of, oh sorry, carry on.

Gustaf Landahl: The referendum was for the people living in Stockholm. If the referendum had also included very many living out in the far suburbs that sometimes commute into the inner city, using their cars, they were not as positive to the results.

Geoff Cooper: Okay, that's interesting.

Gustaf Landahl: But of course, the people in Stockholm, had far more positive results, since they got much better air quality and the noise reduction. It has to be part of the design in determining the area where you ask the people. Is it the people mostly affected getting the positive parts as well? Or do you ask everyone in the whole region? Here it was the people living in the municipality of Stockholm, which in the inner part of the municipality of Stockholm, which is a lot larger area than London's congestion charging, we have a lot larger area in our congestion taxation. So, in that area it had a very positive effect and that's why the people did vote as they did.

Geoff Cooper: Okay, and can you speak a little bit to how the effects of the public sentiment and backing of the policy has changed over time? Because this is now 15 years ago, I suppose.

Gustaf Landahl: Well, after that the people have become more and more used to it. So of course, public opinion has been more and more positive as the time goes by. When we did introduce it, it was a very, rather low fee, or charge, compared to like London, I think they started with five pounds, we started with something equivalent to like, three US dollars, which is less than half of London's. But then after some years, we saw we needed more money for building more infrastructure, both for public transport and for some ring roads. Then we could also raise the level, like 30 to 45 Swedish crowns per passage and that had hardly any people against it, people were not complaining about that change in the cost.

Geoff Cooper: Is that because it was proposed to be spent on public infrastructure and citizens understood the value of that public infrastructure?

Gustaf Landahl: Probably. But also once the congestion taxation was in place the amounts were not the big issue. And still, the amounts are rather low compared, for example, it's less than what it costs for parking for two hours in Stockholm – if you take the maximum fee in rush hour, it's less than two hours parking. What you can see is in London, they got a reduction by about 20% of the traffic flow. In Stockholm we got the same effect at a much lower fee. What happens is that some 20% don't really need to drive into the congestion taxation or congestion charging zone. It's those that you get to avoid by introducing this.

Geoff Cooper: Yes. What was happening to those trips, do you think?

Gustaf Landahl: They just disappeared. We couldn't see those trips coming in the public transport either. So those trips, were in some way unnecessary trips, they just disappeared, we can see that they didn't go other ways either. They didn't drive around the zone. Some parts of course were an increase in public transport, but a larger part than we had thought just disappeared went up into nowhere. And now we can see, in the middle of the day, not rush hour, but in the middle of the day, half of those that do drive in through the congestion charging area are people who need their car for their work, like handicraft people or service people who have a lot of tools in their cars. So, there is an amount of people that really need to drive a car for their work, and they can do it.

Geoff Cooper: What about the addressing equity concerns here? My sense from having worked in the space for many years now is that the first thing you think about when you're bringing in a pricing system is "How are we going to address equity concerns here?" And you've spoken a little bit about public transportation and park and ride facilities. But how was the conversation around equity? How did it take place?

Gustaf Landahl: Well, that was probably about all that really was thought about. For those who will change their habits, because maybe they can't afford continuing to drive with their cars because of this tax, we have to offer them something else and then provide the public transport. So that was the equity issue, really, there wasn't much more. There was no way of like paying back money to people some other way or there were no other types of policies like that.

Geoff Cooper: That's one thing that strikes me about the Stockholm scheme is that it seems like quite a pure scheme in that there's not many exemptions to it. Would that be right?

Gustaf Landahl: Well, there are some exemptions like taxis, clean vehicles – that is vehicles driving on alternative fuels – were made exempt from the beginning, which was a great help in increasing the numbers of vehicles driving on alternative fuels and reducing the climate impact. That was a very good incentive for supporting that type of vehicle. But after a while, people felt that they were increasing so much in numbers and they were congesting the city as well. So, that exemption was taken away. Foreign vehicles were also exempt, because it was too complicated to have a scheme to figure out their license plate numbers and how to charge them. So, they were exempt, but they are always a minority of the number of vehicles driving in the city. There were some other examples, motorcycles were exempted as well. So that was the exemptions.

Geoff Cooper: Presumably, motorcycles were exempt because they don't contribute so much to congestion?

Gustaf Landahl: Right. You can say that.

Geoff Cooper: And that contrasts to London, right, where there were a number of exemptions that were sustained?

Gustaf Landahl: Yeah.

Geoff Cooper: Okay, so in terms of your experience of looking at how things went in Stockholm, and then I suppose, having the benefit of watching, as I said, at the outset, a growing number of cities try and get a policy of this nature through, what sort of advice would you have for those cities that are on this path at the moment?

Gustaf Landahl: Well, try first and have your referendum afterwards. That's number one. To make sure you have a technical system that works well. So, you don't do something during a trial, that is just half-hearted, but you do it really full scale, so everything does work, because that's what people are going to evaluate when they go vote. I could also say that the system has to reflect what you want to accomplish. We had different parts, when you do a political compromise, you have to meet different needs: One is to improve the environment in the city. Those who are who are more interested in environmental issues. Then you want to reduce congestion, which all the people who use their vehicles also appreciate. Then you want to find a way of funding infrastructure investments. So, all of these together is how you balance the system. Now, even a low fee reduces traffic rather much, as we could see. London's was more than twice as expensive, but didn't reduce the traffic more – it was 20% approximately. So, to improve the environment, to reduce congestion, you don't need a high fee, you just need a fee. But then if you want to use the system to fund infrastructure investments in public transport, or even in ring roads or things with a transport system, then of course you have to have a slightly higher fee to collect more revenue.

Geoff Cooper: I presume that there must be a sweet spot there, right? Because obviously, if you raise the price too much, then then you're going to have more of a demand response if you like. I had actually wondered if a small fee might actually end up raising more revenue, but you're saying a higher fee might be better from that perspective?

Gustaf Landahl: Well, of course, if you do raise it too much, you will have a reduction in traffic. But as we could see, when we raised fee by about 40% traffic didn't go down much more, it was still minus 20%. Sometimes you think there's a cost demand curve that's linear or something like that, but here you get the reduction already at a rather low fee, and then it stays about the same level. Of course, at somepoint people won't be able to afford driving in at all, but they can afford pretty high fees still. And if they have to have their car, for example, if it's handicraft people or service people, then probably their company will pay for the cost anyway. So, it's different for different types of vehicles and different types of users of vehicles.

Geoff Cooper: And what's the process for changing the charge itself? Is that something controlled?

Gustaf Landahl: Well, in Sweden, a fee is something that you can introduce on the people living within your own municipality. But this is something that affects the neighbouring municipalities as well. So, a municipality is not allowed to introduce something that affects other people in other municipalities, that has to be on the national level. And that is in Sweden considered a tax. So therefore, it is a national tax. So, the system, the legislation, had to be a national legislation. This came out of some legal studies, which were done in the beginning, when we decided we wanted to do a trial, we found out it has to be a national tax. It has also been introduced in the city of Gothenburg after this, so you have two cities in Sweden now that have congestion taxation. And since it's a national tax, it has to be changed by the national level. But what is decided upon by the local level, that is where you put the different toll places geographically, you decide the area that is on the local level. That's what we got to decide on the local level.

Geoff Cooper: Okay, because that's specific to the place and to where the congestion is at the local level? Okay, that makes sense. And the actual revenue itself where does that go?

Gustaf Landahl: That comes into the national government. Some people were hoping it would be put in a small chest of its own just used for public transport and road infrastructure improvements. But yeah, it goes into the national budget. So that's the way it's actually done now. But on the other hand, the national spending on the local infrastructure has increased in a similar amount.

Geoff Cooper: Right, it's not hypothecated in any way. Okay. That's very interesting. I feel like we could talk about this for a while, but I think we're probably nearing the end. Gustaf, maybe I'll just hand over to you if there's any final remarks you want to make or observations from your experience generally of ushering congestion charging through in Sweden.

Gustaf Landahl: I think it's a very good instrument. It does reduce congestion and improves the flow of traffic for those who want to drive. It improves the air quality in the area affected. It has very many virtues and that's what the people found out after they had tried it. So, go try it.

Geoff Cooper: All right, Gustaf. Hey, thanks very much. And your final week after I think an incredible career and interesting one at that in city hall in Stockholm. Thank you so much for taking the time to speak with us and we wish you all the very best in retirement.

Gustaf Landahl: Okay, thank you very much for calling.

Narrator: Thanks for listening to Infrastructure for a better future. To find out more about the infrastructure challenges we are facing visit www.**strategy.tewaihanga**.govt.nz